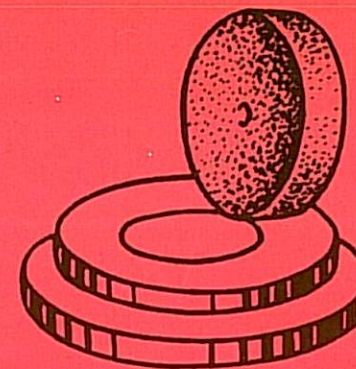


The Arter Model 200 Imperia Carbide Tool Grinder is a double table machine with the spindle arranged to take 6" diameter diamond wheels. Each table is mounted on two pivot plates and the mounting frame can be tilted to the angle required for grinding tools. Protractor type tool holders are standard equipment which locate the tool in the correct angular relation to the wheel. The tool can be held by hand on the table, or in the tool holder. The work table is moved by hand to and fro in front of the grinding wheel. Tool feed is accurately controlled by screw feed to the work table. The machine is arranged for wet grinding, the reservoir and coolant pump being within the base of the machine.

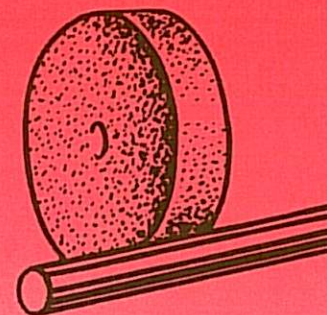
Type of Grinding Wheel (Diamond)	D6WHC
Diameter of Grinding Wheel	6"
Largest Size of Tool Shank Held, Width	1 1/2"
Largest Size of Tool Shank Held, Height	1 1/2"
Dimensions of Work Table	16 3/4" x 7 1/4"
Horse Power of Motor 3 Phase, 3600 RPM	3/4
Tilt of Work Table, Down	20°
Dimensions of Machine Base, on Floor	22" x 16"
Net Weight	600

DISTRIBUTORS

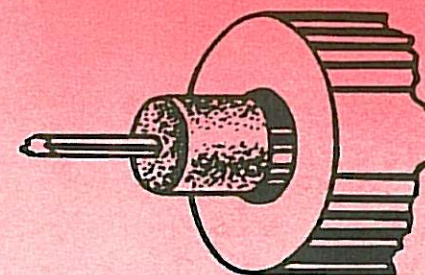
ALABAMA	McVoy-Hausman 2024 Sixth Avenue N., Birmingham 3	NEW YORK (Northern)	R. L. Crane Machinery Co. 438 Delaware Avenue, Buffalo 2
ARKANSAS	Lyons Machinery Co. 904 Broadway, Little Rock		F. W. Schiefer Machinery Co. 39 State St., Rochester 14
CALIFORNIA	Machinery Sales Co. 2838 Leonis Blvd., Los Angeles (Vernon) 58 C. F. Bulotti Machinery Co. 475 Fourth St., San Francisco 7	NEBRASKA	J. F. Owens Machinery Co. 1804-1810 Erie Blvd. East, Syracuse 1 Fuchs Machinery Supply Co. 521 S. 15th St., Omaha 2
CANADA (Ontario)	F. F. Barber Machinery Co. 187-191 Fleet St., West, Toronto, Ontario	NEW ENGLAND (except Conn.)	Edwin S. Drowne, Jr. P. O. Box 276, Weston 93, Mass.
(Quebec)	Rudel Machinery Co., Ltd. 614 St. James St., West, Montreal, Quebec	NO. CAROLINA, SO. CAROLINA, VIRGINIA	Henry Walke Co. 407 Union St., Norfolk 1, Virginia
GEORGIA	Chandler Machinery Co. 120 Houston Street N.E., Atlanta 3	OHIO (Northern)	Garco Machinery, Inc. 21000 St. Claire Ave., Cleveland 17
ILLINOIS, IOWA, MICHIGAN (Western), WISCONSIN	Federal Machinery Sales Co. 4639 Washington Blvd., Chicago 44, Ill.	OHIO (Southern)	The E. A. Kinsey Co., Inc. 331-335 W. Fourth St., Cincinnati 2
INDIANA, KENTUCKY	State Machinery Co., Inc. 1800 North Meridian St. (Rm. 604) Indianapolis 2, Indiana	OKLAHOMA	Marshall Supply & Equipment Co., Inc. 109 West First St., Tulsa 1
LOUISIANA	Dixie Mill Supply Co. 901 Tchoupitoulas, New Orleans 6	OREGON	The Portland Machinery Co. 208-16 S.W. First Avenue, Portland 4
MICHIGAN (Eastern)	Riordan Machinery Co. 213 Curtis Building W. Grand Blvd. at John Lodge Hwy, Detroit 2	PENNSYLVANIA (Western)	Barney Machinery Co., Inc. 119 Federal St. (Martin Bldg.) Pittsburgh 12
MINNESOTA	Anderson Machine Tool Co. 2641-45 University, St. Paul 4	PENNSYLVANIA (Eastern), MARYLAND	Calco Machinery Co. 3701 North Broad St., Philadelphia 40
MISSOURI (Western)	Eichman Machinery Co. 1701 Locust St., Kansas City	TENNESSEE	Hays Supply Co. 269 South Front St., Memphis 2
MISSOURI (Eastern)	Hoffman-Marquard Machinery Co. 1525-27 N. Broadway, St. Louis 6	TEXAS (Northern)	Huster Machinery Co. 1109-11 Patterson Avenue, Dallas 2
NEW YORK (Eastern), NEW JERSEY CONNECTICUT	Triplex Machine Tool Corp. 75 West St., New York 6, N. Y.	TEXAS (Southern)	Wessendorff-Nelms & Co. 320 Franklin St., Houston 13
		WASHINGTON	Star Machinery Co. 241 Lander St., Seattle 4



ROTARY SURFACE GRINDERS



CYLINDRICAL GRINDERS



INTERNAL GRINDERS

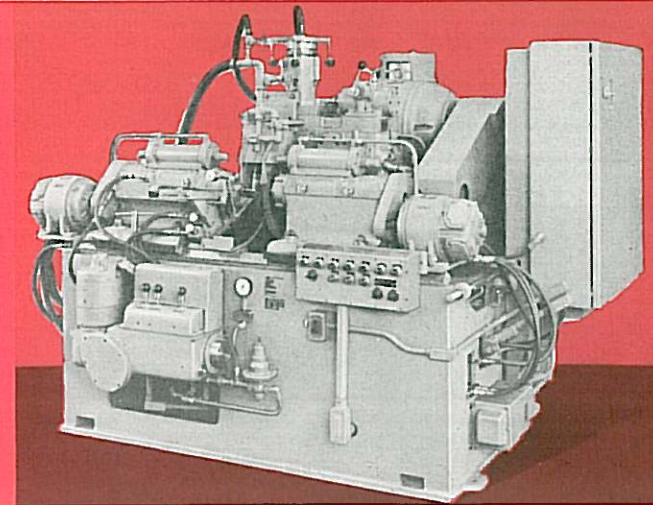
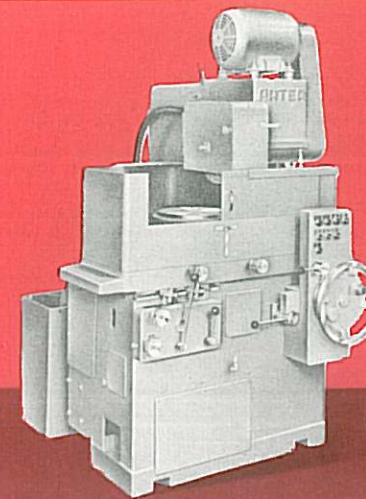
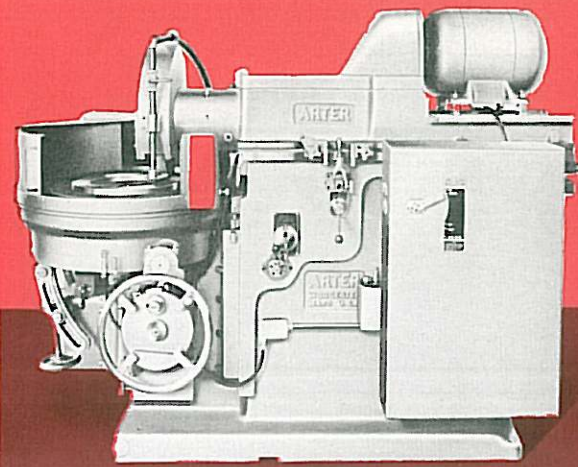
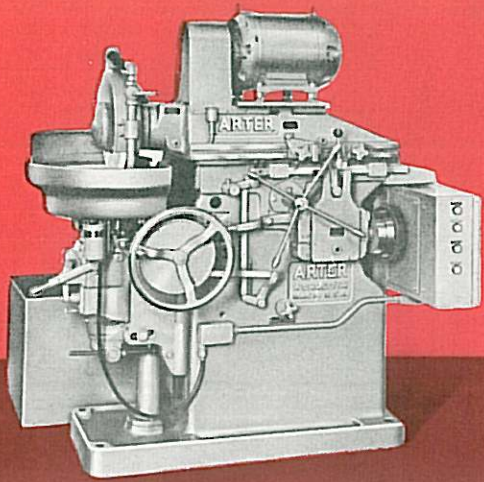
PRECISION GRINDING MACHINES BY

ARTER

ARTER

GRINDING MACHINE CO.
15 Sagamore Road, Worcester, Mass.

LITHO IN UNITED STATES OF AMERICA



Model A Rotary Surface Grinders have been built by Arter for nearly forty years. Grinding is done on the periphery of the wheel, the work being held on a rotating magnetic chuck. Two sizes are available, 8" and 12". Chuck speeds are steplessly variable. The slide is moved by pinion gear and rack from a reversing mechanism. Three wheel slide traverse speeds are available for any chuck speed. Hand and automatic wheel slide traverse feeds are standard equipment. Automatic feed to work table is an extra. The machine is arranged for wet grinding, the tank and motor pump being standard equipment.

Model B Rotary Surface Grinders are built in four chuck capacities, 20", 24", 30" and 40". The machines are mainly hydraulically operated, an hydraulic motor providing stepless variable speeds to the work table. The chuck runs on a flat circular track bearing, this providing rigid support for the work regardless of its weight and position on the chuck or the wheel pressure. Hand and automatic feeds to the work table are standard equipment. Automatic feed only is provided to the wheelslide but for grinding diameters with the side of the wheel a fine feed, hand wheel controlled device can be provided as an extra.

The Model F Rotary Surface Grinder has a wheelhead slidably mounted on a vertical column. The wheel spindle is mounted in anti-friction bearings. Grinding is done by the periphery of a 14" diameter wheel. The 12" diameter electro-magnetic chuck is mounted on a table, slidably operated by a rack and pinion from a reversing mechanism, and it is driven from a 3/4 HP motor. The chuck is mounted on a short spindle running in taper roller bearings, drive is by belt from a 1 HP motor. Both chuck and table are driven by separate Reeves drives thus giving stepless variable selective speeds. The chuck can be tilted for grinding convex or concave surfaces.

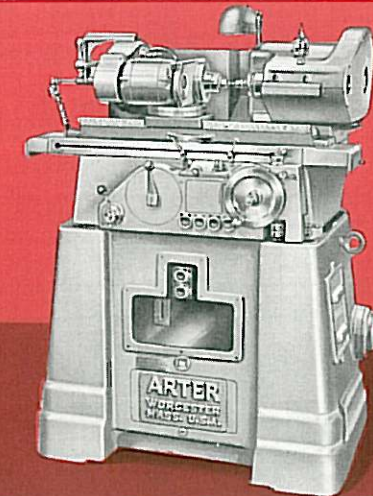
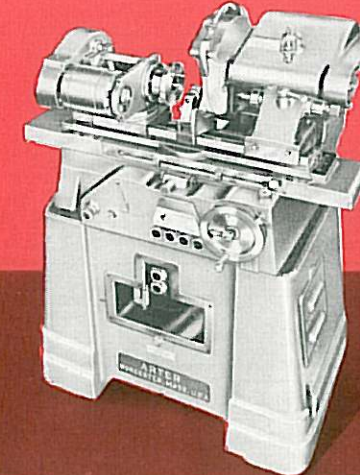
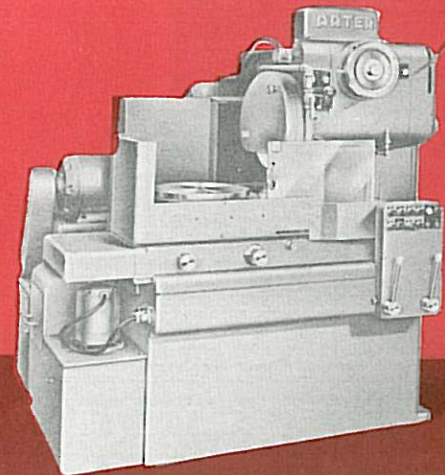
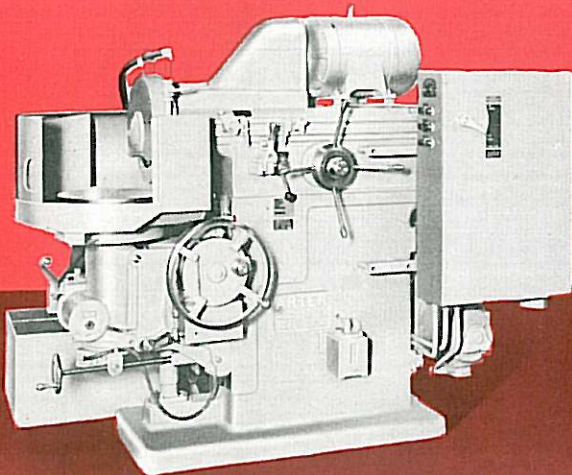
Model 135 Automatic Cylindrical Grinder grinds by the straight-in or plunge-cut feed method, straight or tapered diameters such as are presented on valve stem guides, tappets, pistons, piston pins, bushings, shafts, taps and similar work which can be held on centering devices. When tooled for a job it is fully automatic, successive pieces being ground until there is need for wheel dressing. All movements are synchronized, are hydraulically operated, and easily adjusted.

	8"	12"
Surface Diameter of Magnetic Chuck	8 1/2"	13"
Greatest Swing Inside Water Pan	11"	16"
Vertical Capacity—Full Diameter Wheel (14")	9"	9"
Tilt of Work Table for Convex Grinding	10°	12°
Tilt of Work Table for Concave Grinding	10°	8°
Chuck Spindle Speeds, Variable Stepless	85 to 280	85 to 280
Wheel Spindle Drive Motor 1800 R.P.M.	5 HP	5 HP
Net Weight	3400	3600

	20"	24"	30"	40"
Surface Diameter of Magnetic Chuck	21"	25"	31"	40"
Greatest Swing Inside Water Pan	26"	30"	38"	44"
Vertical Capacity Full Diameter Wheel (20")	8"	8"	8"	6 1/4"
Tilt of Work Table for Convex Grinding	10°	10°	10°	10°
Tilt of Work Table for Concave Grinding	10°	10°	10°	3°
Wheel Spindle Drive Motor 1800 RPM	10 HP	10 HP	10 HP	10 HP
Hydraulic Drive Motor 1200 RPM	7 1/2 HP	7 1/2 HP	10 HP	10 HP
Net Weight	9000	9500	10000	10700

	12"
Surface Diameter of Magnetic Chuck	13"
Greatest Swing Inside Water Pan	18"
Vertical Capacity, Full Diameter Wheel (14")	8"
Tilt of Work Table for Convex Grinding	20°
Tilt of Work Table for Concave Grinding	20°
Work Speeds, Variable	255 max.
Wheel Feed, Hand Only, Increments of .0002"	.002 max.
Wheel Spindle Motor	5 HP
Net Weight	5500

Work capacity diameter	5"
Work capacity length one grind	5"
Maximum distance between centers	18"
Grinding wheel diameter (12" hole, width as required)	20"
Wheel head motor (20-25 optional)	15 HP
Floor space occupied	116" x 84"
Net Weight	8000
Gross weight, crated	9100



Model D Rotary Surface Grinders are built in two chuck capacities, 12" and 16". The wheel slide is hydraulically operated, and moves on flat and vee ways which are cast in line with the axis of the wheel spindle. The ways extend forward of the wall, thus giving greater support and stability to the wheel slide. The chuck spindle runs in ball bearings and is driven primarily from a Vari-drive electric motor unit: Stepless variable speeds are available for both chuck and wheel slide traverse. Hand and automatic feeds to both wheelslide and table are standard equipment. The wheel spindle front bearing is a steel back, babbitt lined, split bearing and the rear, a double row ball bearing.

The Model E Hydraulic Rotary Surface Grinder is a vertical column type machine having a rectangular sliding table with a rotatable magnetic chuck mounted thereon. It is built in two sizes, 12" and 16" chuck capacities. The table slide is hydraulically operated and reversals are controlled by micro-switches. An adjustable wheel dressing diamond tool is mounted in the grinding pan. The electro-magnetic chuck is belt driven from an hydraulic motor. Variable stepless speeds are independently available for table traverse and chuck rotation. The chuck is mounted on a large diameter, triple ring ball thrust bearing. Both hand and automatic feed are provided to the wheelhead. The machine can be arranged to grind work in a complete automatic cycle or for conventional rotary surface grinding.

Model 103 Cylindrical Grinder is a dual purpose external cylindrical and internal grinding machine. It can be purchased as an external grinder only, or as an internal grinder only. Convertible equipment can be purchased at any time. The machine has hydraulic table movement and hydraulic means for automatic in-feed of the wheelhead through worm and worm wheel and a screw. The work table, wheelhead and headstock can be swivelled for grinding angular work. Face grinding also is possible. External grinding equipment includes a self contained wheelhead with 3/4 HP motor and 10" x 3/4" grinding wheel, a driving dog type of face plate and a tailstock.

Model 1G-103 Cylindrical Grinder as shown is arranged for internal grinding. It has both hand and automatic table controls to work table and wheel feed. The cross feed will operate automatically at either or both ends of the worktable stroke even with both dogs at the minimum setting. Maximum feed is .0005", minimum is .0001" at each table reverse. Hand feed is by means of a wheel, graduations being .001". A separate hand knob gives feeds of .0001" on work diameter. The table is reversed by dogs operating a micro switch and solenoid valve. Reversals can be made within less than 1/8" table movement and the reversal positively and repeatedly made within a distance of .005" on the work. The work spindle will take three or four jaw chucks, face plates, step chucks or 5C collets to 1" capacity.

	12"	16"
Surface Diameter of Magnetic Chuck	13"	17"
Greatest Swing Inside Water Pan	25"	25"
Vertical Capacity—Full Diameter Wheel (16")	9"	9"
Tilt of Work Table for Concave Grinding	10°	10°
Tilt of Work Table for Convex Grinding	20°	20°
Chuck Spindle Speeds, Stepless	60 to 250	60 to 250
Wheel Spindle Drive Motor (10 HP optional)	7 1/2 HP	7 1/2 HP
Net Weight	6000	6200

	12"	16"
Surface Diameter of Magnetic Chuck	13"	16 1/4"
Greatest Swing Inside Water Pan	19"	19"
Vertical Capacity, Full Diameter Wheel (16")	12"	12"
Tilt of Work Table for Convex Grinding	19°	19°
Tilt of Work Table for Concave Grinding	10°	10°
Work Speeds, Variable	300 max.	300 max.
Automatic Wheel Feed, Increments of .0002"	.0018 max.	.0018 max.
Wheel Spindle Motor	15 HP	15 HP
Net Weight	8100	8300

Capacity, Diameter, Maximum	(EG) 3" O.D.
Capacity, Between Centers	8 1/2"
Swing, Over Table	9" Dia.
Table Speeds, Hydraulic	4" to 100" PM
Wheelhead Feed, Automatic, Maximum	.0005"
Wheelhead Feed, Automatic Minimum	.0001"
Wheelhead Swivel, Right or Left	15°
Wheel, Grinding, Standard	10" x 3/4" x 1 1/4" hole
Workhead—Takes 5C Collet	1" maximum
Workhead—Takes Jaw Chucks	4" maximum
Net Weight	2000

Capacity, Diameter, Maximum	(1G) 3" I.D.
Capacity, Depth of Hole	4"
Table Travel	9 1/2"
Wheelhead Feed, Automatic, Maximum	.0005"
Wheelhead Feed, Automatic, Minimum	.0001"
Wheelhead Swivel, Right or Left	15°
Wheel Spindle Speeds, as Selected	15000 or 32000 RPM
Workhead—Swivels (Graduated 45° R and L)	90°
Workhead—Takes 5C Collet	1" maximum
Workhead—Takes Jaw Chucks	4" maximum
Net Weight	2000