



LATHES turret

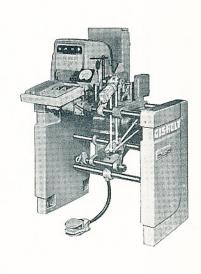
automatic

pages

2-3

4-5

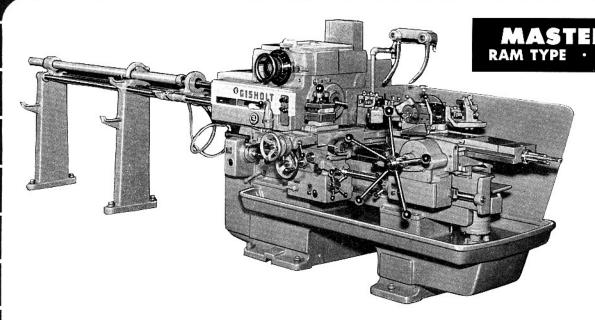
SUPERFINISHING MACHINES page 6



BALANCING MACHINES page 7

GISHOLT MACHINE COMPANY

MADISON 10, WIS., U.S. A.



Advantages

Gisholt MASTERLINE Ram Type Universal Turret Lathes, for rapid, accurate and dependable bar work and chucking, are available in three models. All models are equipped with hydraulic controls which require no physical effort. Hydraulic Speed Selector allows presetting or instant speed changes. Self-adjusting multiple disc clutches between the high and low speed ranges make possible an easy lever control of HI-LO or LO-HI speed changes in an 8:1 ratio without stopping the machine or shifting gears. Hydraulic "inching" and "free spindle" controls are also provided.

Spindle Speeds

No. 3 model is built with an eight-speed headstock and Nos. 4 and 5 models have sixteen spindle speeds. Speed Selector is standard on all three models.

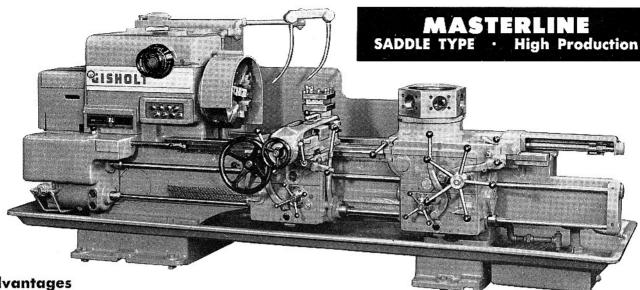
Automatic Lubrication

All bearings, clutches, and gears of the entire headstock are lubricated by a filtered circulating pressure system. Feed gear train and aprons run in a fully enclosed oil bath. Positive pressure lubrication is supplied to the turret ram, the cross slide, and the carriage by "push-button" oil pumps on each apron.

Construction Features

Headstock and bed are a single heavy casting, reinforced for freedom from chatter, and with adequate chip disposal. Ways for the bed and turret saddle are oil-hardened alloy steel and have working surfaces of 64-66 Rockwell "C" Hardness. Ways are keyed and bolted from below for perfect alignment with the spindle and long service life. All shafts are mounted on anti-friction bearings. Headstock gears are heat-treated, oil hardened alloy steel with ground tooth form.

SPECIFICATIONS		No. 3	No. 4	No. 5-21/2"	No. 5-41/2"
Swing	Over Ways Over Carriage Wing Over Cross Slide	191/2" 171/2" 105/8"	191/2" 171/2" 105/8"	213/4" 183/4" 121/8"	21 ³ / ₄ '' 18 ³ / ₄ '' 121/ ₈ ''
Chuck	Diameter of Chuck	8"-10"-12"	10"-12"-15"	12"-15"	15"
Collet Chuck	For Round Stock	11/2"	2"	21/2"	41/2"
Speeds	Forward and Reverse Spindle Speeds Low Range—RPM Intermediate Range— RPM Hi-Lo Speed Shiff Ratio H. P. Motor—Single Speed	8 40-1500 53-2000 8:1 10-30	16 30-1500 40-2000 8:1 10-30	16 30-1500 40-2000 8:1 10-30	16 30-1500 8:1 10-30
Bed	Width of Bed Across Ways	93/4"	93/4"	12"	12"
Spindle	Spindle Nose	8"-A1	8"-A1	8"-A1	11"-A1
Square Turret Carriage	Cross Travel of Cross Slide Longitudinal Travel of Side Carriage 8 Power Longitudinal and Cross Feeds Size of Square Turret Tool	10" 191/8" .003"042" 3/4"×11/4"	10" 191/8" .003"042" 3/4"x11/4"	10½" 26½" .003"042" 34"×1¼"	10½" 255/a" .003"042" 3/4"x1¼"
Hexagon Turret Ram & Saddle	Effective Turning Length for Turret Max. Distance Turret Face to Spindle Flange Turret Width Across Flats 8 Power Longitudinal Feeds	10" 26'/4" 93/4" .003"042"	12'' 261/4'' 93/4'' .003''042''	14" 33" 11" .003"042"	14" 32½" 11" .003"042"
Floor Space	Machine Floor Space, Less Bar Feed Bar Feed Projection Length	114"x62" 98"	114"x62" 98"	121"x63" 98"	121"x63" 98"
Weight	Net Wt., Less Tools and Electrical Equip.	5400 lbs.	5600 lbs.	5900 lbs.	6200 lbs.



Advantages

Gisholt Saddle Type High Production Lathes are distinguished by simple controls and wide adaptability. They can handle small jobs at high speeds, yet they are powerful and heavy enough to stand up under deep cuts and punishing feeds. The Gisholt Speed Selector which controls all spindle speed changes is standard on all models.

Construction Features

Headstock controls are centrally located and easy to operate. Spindle direction is governed by push buttons which energize the "stationary-field" type Warner Electric combination clutch and brake mounted on the sheave end of the drive shaft.

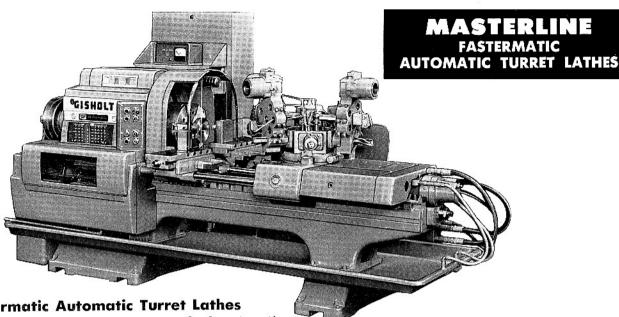
Carriage controls are simplified. Longitudinal and transverse power feeds are selected with a single feed dial on each apron. Independently powered rapid traverses-in and out for cross slide and along the bed in

either direction for both carriages—reduce time and effort in bringing the tools to cutting position. The rapid traverses are operated singly or simultaneously by simple lever controls. All feeds are automatically disengaged when the traverses are used.

Durable Working Parts

Headstock and bed is a single casting of nickel semisteel. Heavy block-type bedways of oil-hardened alloy steel have ground surfaces of 64-66 Rockwell "C" Hardness on all sides. They are straddle-keyed to the bed and bolted from below for perfect alignment with spindle centerline and long service life. The forged steel hollow spindle is mounted in precision antifriction bearings with rated capacities far above actual loads. All working parts in aprons and headstocks are lubricated by cascading oil.

SPECIFICATIO	NS	1L	2L	3L	4L	5L
5wing	Over Bedways Over Cross Slide Over Carriage Wing	19½'' 15'' 17''	23" 19" 21"	28½" 21¾" 25½"	313/6" 241/2" 281/2"	36½'' 30'' 33½''
Chuck	Standard Chuck Sizes	12"-15"	15''-18''	18"-21"	24"	29''-32''
Collet Chuck	Round Stock Capacity	21/2"-3" 31/2"	31/2''-4'' 41/2''	41/2"-5" 61/2"	_	_1
Speeds	Standard Spindle Speeds (12) Optional Spindle Speeds (12) Double Range (24) Optional High Spindle Speeds (12) Optional High Double Range (24) H.P. Motor Recommended	18-538 RPM 31-940 RPM 18-1090 RPM 49-1500 RPM 25-1500 RPM 25-30	12-346 RPM 21-610 RPM 12-750 RPM 34-1000 RPM 16-1000 RPM 30-40	12-307 RPM 21-540 RPM 12-650 RPM 31-800 RPM 15-800 RPM 40-60	7-183 RPM 12-320 RPM 7-395 RPM 50-75	6-162 RPM 11-280 RPM 6-340 RPM
Bed	Width Across Ways	14"	17"	22''	26"	26"
Spindle	American Standard Spindle Nose Hole in Spindle	A1-8" A1-11" 3-1/16" 3-9/16"	A1-11" 4-1/16" 4-9/16"	A1-11" A1-15" 51/8" 65/8"	A1-20" 91/2" or 121/2"	A1-20" 9½" or 12½"
Square Turret Carriage	Cross Slide Travel Longitudinal Carriage Travel 16 Power Cross Feeds 16 Power Longitudinal Feeds	10½" 40" .002"084" .004"168"	12½" 46½" .002"084" .004"168"	14" 51" .0025"088" .005"176"	15" 63" .0025"038" .005"176"	16" 93" .0025"088" .005"176"
Hexagon Turret Carriage	Cross Travel (C/F Turret) Longitudinal Travel End of Spindle to Face of Turret 16 Power Cross Feeds (C/F) 16 Power Longitudinal Feeds	63/4'' 40'' 50'' .002''084'' .004''168''	734'' 461/2'' 57'' .002''084'' .004''168''	9" 51" 62" .0025"088" .005"176"	12" 63" 73" ,0025"088" .005"176"	12" 93" 103" .0025"088" .005"176"
Floor Space	Machine, With Bar Feed Machine, Less Bar Feed	80"x223" 80"x159"	83"x230" 83"x166"	95"x257" 95"x198"	101"x271" 101"x208"	101"x301" 101"x238"
Weight	Net Weight, Less Equip. (Approx.)	10,350 lbs.	11,000 lbs.	18,000 lbs.	21,000 lbs.	24,000 lbs.



Fastermatic Automatic Turret Lathes

The Fastermatic is a simple, yet completely automatic turret lathe that combines the advantages of normal turret lathe practice with an automatic cycle that permits a single operator to handle two or more machines. It is easy to set up and continually repeats the tolerances to which it has been set. Manual operation of the hydraulic controls is provided to facilitate setup and tool adjustment. This permits the operator to advance, stop, back up or continue anywhere within the cycle.

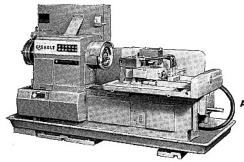
Hydraulically Operated Feeds — Hexagon turret is hydraulically operated with infinitely variable feeds. Each turret station has rapid traverse and one or more feed rates which can be automatically changed at any given point. Turret feed and point of change from traverse to feed is set by buttons positioned on a sixsided spool. Turret feeds to a positive dead stop for repeat accuracy.

Cross Slides — Fastermatics are equipped with front and rear cross slides. These may be operated singly or together and with any combination of turret stations. Each slide may use a number of different feeds up to and including the feed rate of the corresponding turret station. Movement of each cross slide is controlled by cams actuated by the forward movement of the turret saddle.

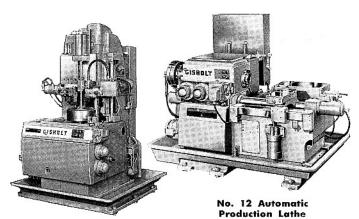
Variety of Spindle Speeds - The various speed ranges built into the headstock provide a wide variety of automatic spindle speed changes. Pick-off gears establish the desired range, and hydraulic controls, set by buttons positioned on a six-sided spool, select the individual speeds. One or more spindle speeds may be used for each turret station. The point of speed change is also adjustable.

SPECIFICATIONS	SOMETH NOTES 2011 2017 201	1F	2F	4F
Swing	Over Bedways Over Cross Slide "IN" (Max.) Over Cross Slide "OUT" (Max.) Over Cross Slide Cam Guard Over Cross Slide Carriage Base Under Pilot Bar Under Stop Bar (Optional)	Cross Slide "IN" (Max.) 81/2" Cross Slide "OUT" (Max.) 1234" Cross Slide Cam Guard 143/4" Cross Slide Carriage Base 191/2" Prilot Bar 20"		36½" 24" 24" 28½" 33" 37" 31¾"
Bed	Distance Across Ways	111/2"	14"	311/2"
Chuck	Standard Chuck Sizes	10"-12"-15"	15''-18''-21''	21''-24''
Speeds	Available Speed Ranges Spindle Speed Limits H.P. Motor Recommended	9 Sets of 3-5 Ranges 33-1745 RPM 10-30	7 Sets of 4-5 Ranges 21-1491 RPM 15-40	8 Sets of 4-5 Ranges 7-306 RPM 30-60
Spindle	American Standard Spindle Nose Hole in Spindle	A1-8" 2-5/16"	A1-11" 3-5/16"	A1-15'' 51/4''
Cross Slides	Front and Rear-Width Dist. Spindle Center to Cross Slide Travel-Each Slide	7'' 3'' 3\'4''	8'' 4'' 5''	10'' 7½'' 7½''
Hexagon Turret Carriage	Longitudinal Travel Effective Feeding Movement (Max.) No. of Hydraulic Feeds End of Spindle to Face of Turret Tool Holes in Turret Swing Over Turret Carriage (Dia.)	16" 11" Infinite 36-11/16" 294" 7½"	18'' 121/2'' Infinite 45'' 29'4'' 103'4''	24½" 18-5/16" Infinite 66-3/16" 5" 16½"
Shipping Information	Floor Space (Approx.) Net Weight, Less Equip. (Approx.)	59"×132" 7900 lbs.	69"×156" 9800 lbs.	88"x203" 27,000 lbs.

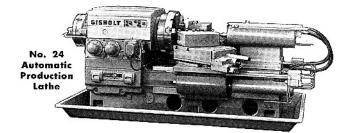




Simplimatic Automatic Lathe



No. I2V Automatic Production Lathe



MASTERLINE

Simplimatic Automatic Lathes

Two basic models are the Platen Table and Vertical Head Lathes. Both are adaptable to a wide variety of chucking work. The Platen model offers a large flat table on which two or more independent slides may be mounted at any angle to the work. The Vertical model may hold fixed tools for plunge cutting only or tooling mounted on auxiliary slides for combined longitudinal and transverse movements.

SPECIFICATIONS	
Swing Over Bedways Swing Over Platen Table Maximum Table Travel Width Across Bedways Available Speed Ranges Spindle Speed Limits H.P. Motor Recommended Am. Std. Spindle Nose Maximum Slide Travel Approximate Floor Space Net Weight, Less Equip.	361/4" 25" 25" 25" 12 Sets of 17 23-1257 RPM 15-75 A1-15" 20" 76"x128" 11,500 lbs.

MASTERLINE

Automatic Production Lathes

The No. 12 and No. 12V are compact and versatile and distinguished by simplicity of tooling, control and change over. Each may be used equally well for small lots or long production runs. Ideal for high production precision work on forgings, castings, stampings, and when arranged with a tailstock and work driver, for between-centers work.

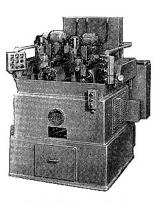
The No. 24 model combines ruggedness and capacity for large parts with the basic versatility of the smaller No. 12 Gisholt automatic lathe.

All three machines provide a wide range of available spindle speeds through convenient pick-off change gears. The independent feed pumps provide infinitely variable feeds to front and rear tools. Although these machines are completely automatic, all functions can be separately and manually controlled.

	SPECIFICATIONS	No. 12	No. 12V		SPECIFICATIONS	No. 24
Swing	Over Carriage Bar Over Front Carriage Length Between Centers	16½" 12" 22"	16¼" 12" 20"	Swing	Over Bedways Over Carriage Length Between Centers	35 ³ / ₄ " 27 ³ / ₄ " 36"
Chuck	Standard Chuck Sizes	8''-15''	8"-15"	Bed	Width Across Ways	28''
Speeds	Number of Speeds in Each Range	28	28	Chuck	Standard Chuck Sizes	15"-32"
	First Range (Pick-Off Gears) Second Range (Pick-Off Gears) Third Range (Direct Drive) H.P. Motor Recommended	40-570 RPM 109-1564 RPM 375-2600 RPM 10-40	40-570 RPM 109-1564 RPM — 10-25	Speeds	Number of Speeds in Each Range First Range (Low) Second Range (Standard) Third Range (Medium)	32 25-136 RPM 38-208 RPM 53-290 RPM
Spindle	American Standard Spindle Nose Hole in Spindle	A1-8" 2-3/16"	A1-8" 1 ⁵ /8"		Fourth Range (High) H.P. Recommended	69-378 RPM 25-125
Front Carriage	Width Length	8" 15½" 12"	8" 15½" 12"	Spindle	American Standard Spindle Nose Hole In Spindle	A1-15" 3"
g	Travel (Longitudinal) Travel (Transverse) Distance From Centerline(Minimum-Maximum)	4-13/16" 15/16"-5 ³ / ₄ "	4-13/16" 15/16"-53/4"	Standard Carriage	Width Length Travel	231/2" 26" 24"
Rear Independent Slide	Width Length Height Travel	121/8" 22-5/16" 71/2" 12"	121/a'' 22-5/16'' 71/2'' 12''	Independent Slide	Width Length Height Travel	18" 25 ³ ⁄ ₄ " 9" 15"
Feeds	Infinitely Variable (Max.)	0''058''	0''058''	Feeds	Infinitely Variable (Max.)	0"125"
Shipping Information	Machine Floor Space Net Weight, Less Equip. (Approx.)	65"x99" 9000 lbs.	65"x69" 7000 lbs.	Shipping Information	Machine Floor Space Net Weight, Less Equip. (Approx.)	62"x160" 16,000 lbs.

O TISHOLT

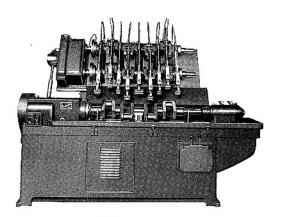
Model 52A Superfinisher



Model 54 Superfinisher



Model 81 Superfinisher



Crankshaft Superfinisher

MASTERLINE SUPERFINISHING MACHINES

After the usual grinding operation such minor surface irregularities as chatter and feed marks, defects from unbalanced or loading grinding wheels, etc. are still apparent. In addition, the heat developed by grinding and subsequent use of coolant causes a change in the surface structure of the metal. This surface or "smear" metal does not have the same hardness as the base metal measured under the Rockwell hardness test.

In the Superfinishing operation, an abrasive stone oscillates as the work rotates. The light pressure of the contact gives a scrubbing effect which removes the rough peaks and valleys as well as the "smear" metal surface left by the grinding operation. Surface finishes as low as one Micro Inch can quickly and economically be attained by Superfinishing.

Types of Gisholt Superfinishers

General Purpose — Many tool rooms and job shops have a need for machines to do a wide variety of work. Two such models have been developed for this general purpose work. These same machines can often be adapted for long run, production work.

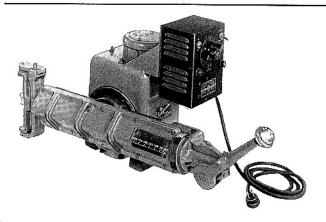
The Model 51-A will swing a 10" part, 18" between centers, with a maximum weight of 125 lbs.

The Model 52-A is shown above. This machine will swing a 10" part, 36" between centers, with a maximum weight of 125 lbs.

Cylindrical — Model 54 is a high production two spindle machine designed to finish cylindrical parts of small to medium sizes. Machine cycle is automatic, so that operator need only load and unload.

Flat — Single spindle model 81 shown, finishes flat, conical, or spherical surfaces. Easily adapted to automatic loading and unloading for high production operation.

Crankshaft — Designed to simultaneously finish all crankpin and main bearings of crankshafts at high production rates with a completely automatic operating cycle.



Superfinishing Attachments

Available in three sizes scaled in increasing work diameters. Designed to mount on tool post cross slide of engine or turret lathes. Oscillation rate is instantly variable with control unit mounted directly on attachment. Stoneholder arm is lever or air operated and stone is held to the work by adjustable pressure. Workpiece is supported between machine centers and movement of the lathe carriage gives necessary traverse for Superfinishing long parts.

SPECIFICATION\$	No. 1	No. 3	No. 4	
Maximum Diameter Maximum Pressure Oscillation Travel Maximum Oscillation Per Min.	3"	18"	60"	
	70 lbs.	200 lbs.	800 lbs.	
	3/16"	3/16"	1/4"	
	450	375	200	

MASTERLINE BALANCING MACHINES

Static and Dynamic-With or Without Correction Devices

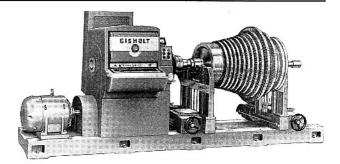
DYNETRIC Type 5—These improved Balancing Machines provide a means for quickly and accurately measuring and locating unbalance in parts weighing from a few ounces to several hundred pounds. The machines are available in both horizontal and vertical models in a number of standard sizes. The machines give utmost satisfaction on either large or small quantities of similar parts. The required amount of correction to balance is indicated in practical units such as (1) in thousandths of an inch of depth of drill, (2) in 1/64 inch lengths of wire solder, or (3) in any other unit most satisfactory for the specific work piece.





	Horizontal						Vertical	
SPECIFICATIONS	Bench	Туре		Floor	Туре		Single Plane	Two Plane
	OSB	1\$B	15	135	35	315	15V1	ISV2
Work Capacity, Weight in lbs.	1/4-5	1-30	1-30	2-50	15-300	2-300	1-15 or 2-50	1-15 or 2-50
Overall Diameter Shaft Diameter at Bearing Surfaces	1/2"	12" 11/e"	12" 11/e"	24" 21/8"	24"	24" 21/8" & 5"	12" or 18"	12" or 18"
Maximum Distance Between Bearings		12"	12"	24"	24"	24"		— ·
Balancing Speeds, RPM	1000-3000	1000-3000	1000-3000	1000-2000	1000-2000	1000-2000	2000 or 1000	2000 or 1000
Floor Space (Approx.)	36"x37"	42"x37"	43"x43"	68"x43"	68"x43"	68"×43"	46"x52"	46"x52"
Net Weight, Ibs. (Approx.)	450	550	1500	1700	1800	1900	3000	3000

DYNETRIC Type U — These balancing machines are available in a number of standard sizes for parts weighing from 25 to 300,000 lbs. The Type U machines incorporate all features necessary to provide rapid setup and unbalance measurement in parts produced in large quantities, small lots, or even single units. Unbalance effects causing bearing movements as small as .000025 inch are quickly and accurately measured and located by unskilled operators. Both vertical and horizontal models of this machine are available.



SPECIFICATIONS	Type 2U	Type 4U	Type 6U
Work Capacity, Weight in Ibs.	25 to 500 lbs.	125 to 2500 lbs.	500 to 10,000 lbs
Overall Diameter	68"	68"	68"
Shaft Diameter at Bearing Surfaces	51/2"	11"	14"
Length Between Coupling and Opposite Bearing	60"	60''	72"
Balancing Speeds, RPM	300 RPM	300 RPM	300 RPM
Floor Space (Approx.)	120"x48"	123''x48''	168½"x50½"
Net Weight, Ibs. (Approx.)	5500 lbs.	5900 lbs.	6600 lbs.

Dyn-Aut-RoniC Balancing Machines — The newest additions to the Gisholt line — providing a means whereby the complete balancing process is performed without an operator including, if desired, loading, unloading and inspecting the work.

Dyn•Aut•RoniC Balancing Machines are versatile and flexible — they can be arranged to fit into any production line setup. These ultra-modern Balancers are available in single and multi-station models — both horizontal and vertical.

DYNETRIC Micro Balancer — An extra accurate machine for measuring and locating the amount of correction required in each of two selected planes. The

Micro Balancer is used for balancing gyro wheels, high speed gas turbine assemblies and other high speed rotating parts or assemblies. Unbalance effects causing work piece vibrations of .0000005 inches are accurately measured and located with the work piece running at any speed between 5000 and 40,000 R.P.M. When desirable the work piece may run under its own power.

Static Balancers — These machines are available for balancing disc-shaped parts such as axial flow fans, flywheels, clutches, centrifugal pump impellers and the like. The machine is particularly sturdy, accurate and capable of balancing at high rates of production. It is available in several standard sizes.

Detailed Machine Information

The information on the products described in this catalog is necessarily brief. It by no means covers the full Gisholt line of machines, their capabilities and scope. More complete and detailed information is available on every machine shown in this catalog. Write for specific literature on any products in which you are interested.

If you have a specific problem we invite you to present it to the Gisholt Engineering and "Round Table" staff.

The Gisholt Round Table



represents the collective experience of specialists in the machining, surface-finishing and balancing of round and partly round parts. Your problems are welcomed here.

Engineering Service

Gisholt engineers have been assisting the machine industry throughout the years in solving old problems and meeting new challenges. Our staff combines its expert knowledge and trained imagination to bring you a complete service whether your needs demand standard or specialized machines and tooling.

The Gisholt plant is among the largest in the industry and includes, besides the usual Machining and Assembly Departments, its own large and modern Foundry, Heat Treating Department, Forge Shop, and Laboratory. Every Gisholt machine is built to the highest standards of accuracy and quality.

We offer you our facilities and abilities to help you develop and expand your business potential.

GISHOLT in the United States

Atlanta, Georgia R. O. Deaderick Co. Box 181, N. Side Station Phone: EX 8572

Birmingham 2, Alabama
The Young & Vann Supply Co.
1725-31 First Avenue, North
Phone: 7-5161

Buffalo 3, New York Gisholt Machine Co. 495 Ellicott Square Bldg. Phone: CLeveland 2518

Chicago 35, Illinois Gisholt Machine Co. 6920 W. North Ave. Phone: MErrimac 7-5618

Cleveland 7, Ohio Gisholt Machine Co. 14812 Detroit Ave. Phone: LAkewood 1-5442

Clifton, New Jersey
Gisholt Machine Co.
1051 Bloomfield Ave.,—
Box 521
Phone: GRegory 3-9053

Dayton 6, Ohio
Gisholt Machine Co.
2676 Salem Ave.
Phone ORegon 4871

Denver 4, Colorado
Overgard Machine Tool Co.
2045 West 8th Ave.
Phone: MAin 3-3141

Detroit 38, Michigan
Gisholt Machine Co.
10600 Puritan Ave.
Phone: UNiversity 4-7557

Hartford 5, Connecticut
Gisholt Machine Co.
526 Farmington Ave.
Phone: ADams 2-0538

Houston 4, Texas Gisholt Machine Co. 4101 San Jacinto—Box 8188 Phone: JAckson 3-4724

Kansas City 8, Missouri Fuchs Mach. & Supply Co. 1823 Walnut St. Phone: Victor 3558

Los Angeles 58, California Gisholt Machine Co. 2620 Leonis Blvd. Phone: Ludlow 1-8267

Miami 9, Florida General Equip. Inc. 543 N.W. 5th St. Phone: 2-8468

Milwaukee 17, Wisconsin Gisholt Machine Co. 153 E. Silver Springs Rd. Phone: EDgewood 2-8205 Minneapolis 1, Minnesota The John C. Eide Co. 200 Washington Ave. North Phone: GEneva 7709

New Orleans 12, Louisiana Richards & Holmes Mchy., Inc. 625 South Peters St. Phone: RAymond 7281

Omaha 2, Nebraska Fuchs Mach. & Supply Co. 2401 N. 11th St. Phone: ATlantic 7050

Philadelphia, Pennsylvania Gisholt Machine Co. 325 McClatchy Bldg. Upper Darby, Pennsylvania Phone: SHerwood 7-1010

Pittsburgh 27, Pennsylvania Gisholt Machine Co. 4140 Brownsville Rd. Phone: TUxedo 2-6500

Portland 12, Oregon Harry M. Euler Co. 2811 N.E. Glisan St. Phone: EMpire 4513

Richmond 11, Virginia Smith-Courtney Co. Seventh & Bainbridge Sts. Phone: 82-4581

Rock Island, Illinois Gisholt Machine Co. 22 Watch Hill Road Phone: Rock Island 8-7421

St. Louis 10, Missouri
Gisholt Machine Co.
4030 Chouteau Ave.
Phone: JEfferson 5-4470

Salt Lake City 7, Utah Todd Machinery Co. 4165 Holloway Dr. Phone: 87-2148

San Francisco, California Gisholt Machine Co. 1341 Old County Road Belmont, California Phone: LYtel 1-1352

Scottsdale, Arizona Wilson Machinery Corp. 618 South Miller Road Phone: WHitney 5-8362

Seattle 8, Washington Dawson Machinery Co. 5700 First Ave., So. Phone: LAnder 8877

Shreveport 93, Louisiana Richards Mchy. & Supply Co. 200 Edwards St., P.O. Box 1482 Phone: 2-0331

GISHOLT in Canada

Hamilton, Ontario J. H. Ryder Machy. Co., Ltd. 634 Main St., E. Phone: JAckson 8-8435

Montreal 9, Quebec J. H. Ryder Machy. Co., Ltd. 8455 Decarie Blvd. Phone: Riverside 4-2861

Toronto 5, Ontario J. H. Ryder Machy. Co., Ltd. 1130 Bay Street Phone: PRincess 6611 Vancouver, B. C. J. H. Ryder Machy. Co., Ltd. 2246 E. Hastings St.

Windsor, Ontario J. H. Ryder Machy. Co., Ltd. 1785 Walker Rd. Phone: CLearwater 3-1156

Winnipeg 12, Manitoba T. S. Taylor Machinery Co. 1600 Portage Ave., St. James Phone: 74-4577