

Milwaukee

MACHINE TOOLS

Frederick T. Jones & Co.
 MADISON ST., CHICAGO, ILL.
 PHONE CENTRAL 0293

MILLING ATTACHMENT
 ARBORS
 FACE MILL GRINDER
 MILLS
 MILLING MACHINES

AUTOMETRIC
 #16 BORERS

WIDGETMILL

ROTARY HEAD MILLING MACHINE
 CENTER SCOPE
 FACE MILL CUTTERS
 SPEEDMILL

SINCE 1898 the story of sound engineering, precision manufacturing and superior workmanship in *Milwaukee* Milling Machines has never changed. To users for 45 years it has meant thousands of hours of profitable, efficient performance. It is this quality of assured productivity in *Milwaukee* Milling Machines that brings satisfaction and justifies investment in them.

AUTOMATIC FLOOD LUBRICATION provides continuous flow of lubricant to all driving mechanisms.

DOUBLE OVERARMS contribute outstandingly to the rigid structural design of all horizontal *Milwaukee* Milling Machines.

SPEED RANGES are suited to the common needs of production, toolroom, experimental and general manufacturing operations.

CENTER BEARING SPINDLE —increases rigidity of this unit eight times.

4-POSITION MICROMETER STOP —A standard precision feature of sliding head verticals simplifies step milling operations.

KNEE-TYPE HORIZONTAL

KNEE-TYPE VERTICAL

HANDY REAR CONTROLS (except on Models 2HL and 2H) enable operators to always view their work—no "blind" milling on *Milwaukee* horizontals.

FEED RANGES are available to meet the most exacting requirements of accuracy and production.

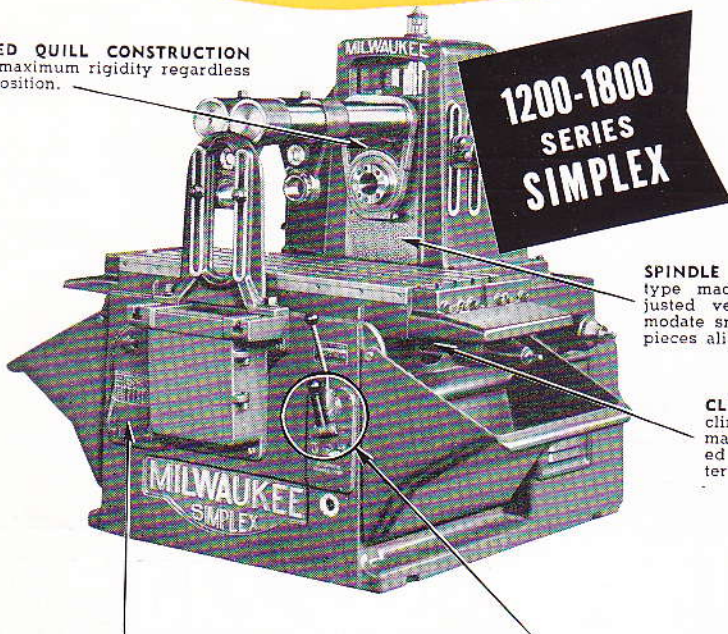
CONVENIENT SAFETY CONTROLS facilitate rapid, efficient production.

POWER FEED — Including power rapid traverse—to the sliding head speeds production on vertical milling operations.

KEARNEY & TRECKER CORPORATION . . .

WHATEVER problems of production may arise in the shop or in the toolroom, Milwaukee Milling Machines will be found adequately capable of doing the necessary milling. More than forty styles and sizes of knee type and bed type models are available, each having speed and feed ranges suitable to the requirements of materials used and the degree of accuracy and finish desired.

ANCHORED QUILL CONSTRUCTION provides maximum rigidity regardless of quill position.



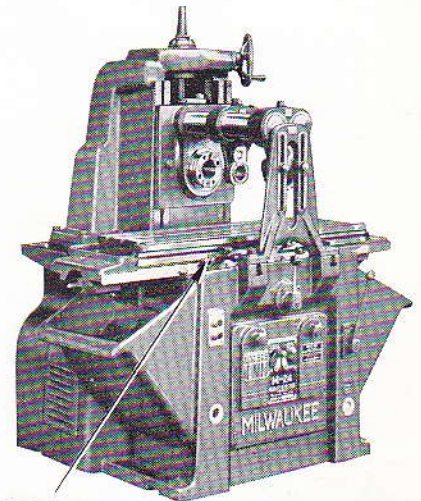
**1200-1800
SERIES
SIMPLEX**

SPINDLE BLOCKS on bed type machines can be adjusted vertically to accommodate small or large work-pieces alike.

CLIMB CUT SCREW permits climb milling on bed type machines—results in improved finishes and reduced cutter wear.

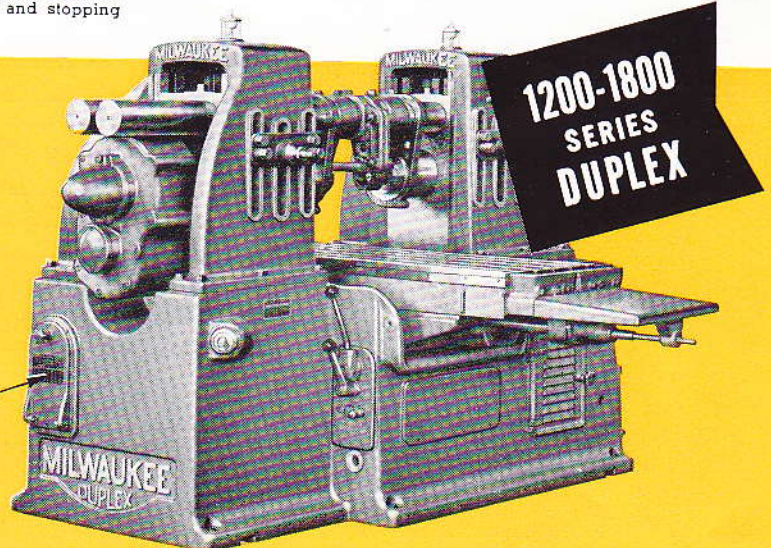
SPEEDS AND FEEDS are obtained by pick-off gears. 1200-1800 Series Models have available ten speed and eighteen feed changes. M-Series Models (shown right above) have sixteen changes each of speed and feed.

SIMPLE HYDRAULIC CONTROLS automatically actuate the clutches for feed, rapid traverse, intermittent cutting, automatic reverse and starting and stopping the spindle.



**M-SERIES
SIMPLEX**

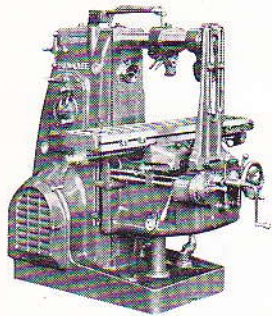
AUTOMATIC CYCLES for greater production are provided for in all Simplex and Duplex machines.



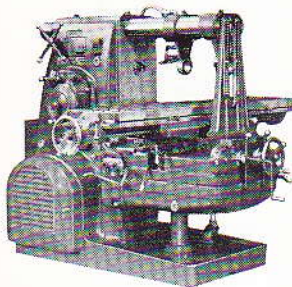
**1200-1800
SERIES
DUPLEX**

DUPLEX SPINDLE SPEED UNITS—Independent speeds are furnished for each spindle, permitting the use of different diameter cutters.

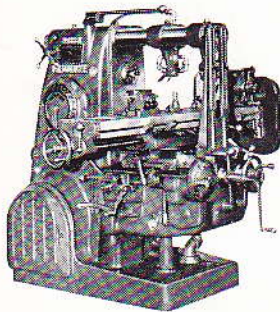
Milwaukee MILLING MACHINES



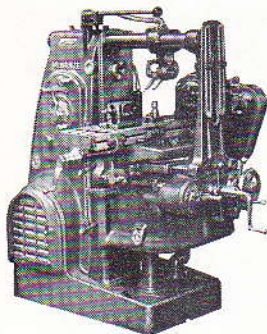
MODEL 2H PLAIN



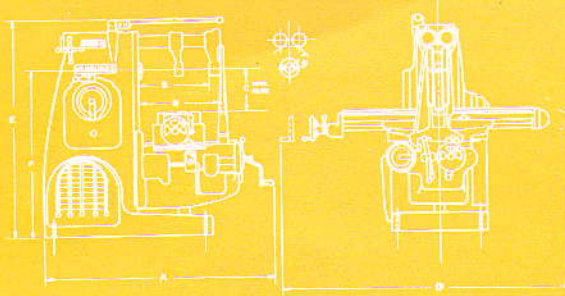
MODEL 5H PLAIN



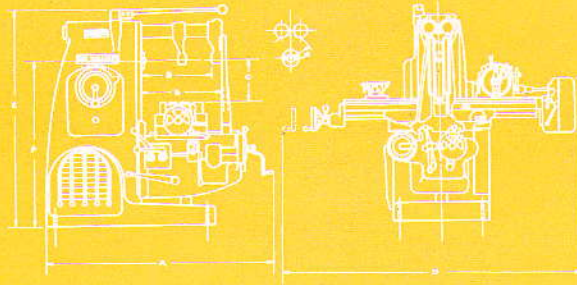
MODEL 3K UNIVERSAL



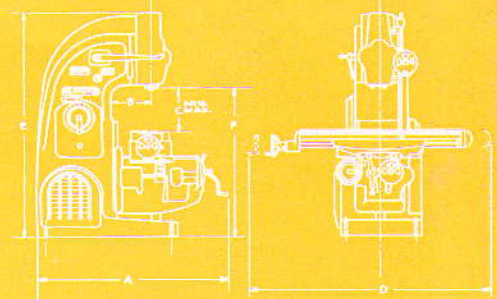
MODEL 2HL UNIVERSAL



PLAIN MACHINES



UNIVERSAL MACHINES



VERTICAL MACHINES

DIMENSIONS AND

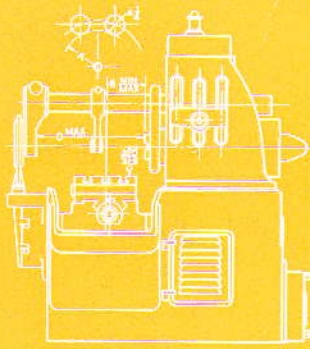
KNEE TYPE MACHINES — PLAIN • UNIVERSAL

Model and Style	Table Working Surface	Power Feed Range				Range of Feeds *See Note	No. of Feeds	Rapid Traverse	Range of Speeds	No. of Speeds	Motor H.P.	Wgt. Lbs.	Plan Dimensions		
		Long.	Cross	Vert.	Sh.								A	B	B'
2HL															
Plain		28"	10"	16"		1/2" to 20" L-C 1/4" to 10" V	16	Yes	35 to 1400 R.p.m.	16	3	2700	56 1/4"	21 1/8"	19 1/8"
Universal	46"x9"	28"	10"	16"								3000	56 1/4"	21 1/8"	19 1/8"
Vertical		28"	10"	16"								3300	56 1/4"	14	
2H															
Plain		28"	10"	17"		1/2" to 20" L-C 1/4" to 10" V	16	Yes	35 to 1400 R.p.m.	16	5	3750	60 1/4"	24 3/8"	21 1/4"
Universal	50"x10"	28"	10"	17"								3950	60 1/4"	24 3/8"	21 1/4"
Vertical		28"	12"	15"	4"							4250	60 1/4"	14	
2K															
Plain		28"	10"	17"		1/4" to 60" L-C 1/8" to 30" V 1/8" to 30" SH	32	Yes	15 to 1500 R.p.m.	24	7 1/2	6100	69 1/4"	26 1/8"	23 3/4"
Universal	50"x12"	28"	10"	17"								6400	69 1/4"	26 1/8"	23 3/8"
Vertical		28"	12"	14"	6"							6700	69 1/4"	14	
3H															
Plain		34"	12"	17"		1/2" to 30" L-C 1/4" to 15" V 1/4" to 15" SH	16	Yes	20 to 1000 R.p.m.	16	7 1/2	6150	69 1/4"	26 1/8"	23 3/8"
Universal	64"x13 1/2"	34"	12"	17"								6450	69 1/4"	26 1/8"	23 3/8"
Vertical		34"	12"	14"	6"							6750	69 1/4"	14	
3K															
Plain		34"	12"	18"		1/4" to 60" L-C 1/8" to 30" V 1/8" to 30" SH	32	Yes	15 to 1500 R.p.m.	24	10	7800	75 3/4"	31 1/8"	27 3/4"
Universal	64"x15 1/2"	34"	12"	18"								8250	75 3/4"	30 3/8"	27 1/8"
Vertical		34"	14"	16"	7"							8800	75 3/4"	18	
4H															
Plain		42"	14"	18"		1/2" to 30" L-C 1/4" to 15" V 1/4" to 15" SH	16	Yes	20 to 1000 R.p.m.	16	10	7850	75 3/4"	30 3/8"	27 1/8"
Universal	74"x15 1/2"	42"	14"	18"								8300	75 3/4"	30 3/8"	27 1/8"
Vertical		42"	14"	16"	7"							8850	75 3/4"	18	
4K															
Plain		42"	14"	20"		1/4" to 60" L-C 1/8" to 30" V 1/8" to 30" SH	32	Yes	13 to 1300 R.p.m.	24	15	12500	86 3/4"	36	32 1/2"
Universal	82"x18"	42"	14"	20"								13200	86 3/4"	36	32 1/2"
Vertical		42"	16"	20"	8"							14000	86 3/4"	21	
5H															
Plain		52"	16"	20"		1/4" to 60" L-C 1/8" to 30" V 1/8" to 30" SH	32	Yes	13 to 1300 R.p.m.	24	15 or 20	12500	86 3/4"	36	32 1/2"
Universal	94"x18"	52"	16"	20"								13450	86 3/4"	36	32 1/2"
Vertical		52"	16"	20"	8"							14200	86 3/4"	21	
5HM															
Plain		52"	16"	20"		1/4" to 60" L-C 1/8" to 30" V 1/8" to 30" SH	32	Yes	12 1/2 to 500 or 13 to 1300 R.p.m.	16	25	12750	86 3/4"	36	32 1/2"
Vertical	94"x18"	52"	16"	20"	8"							14250	86 3/4"	21	

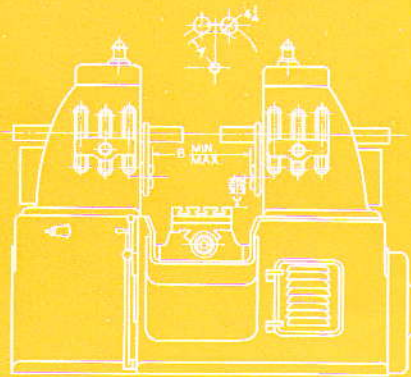
*Reference: L—Longitudinal; C—Cross; V—Vertical; SH—Sliding Head. Feed and Speed Ranges Listed are Standard.

SPECIFICATIONS

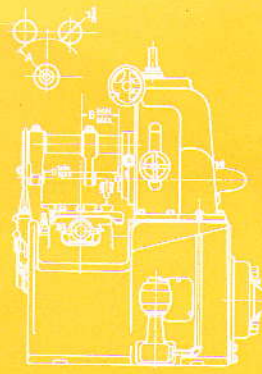
Milwaukee MILLING MACHINES



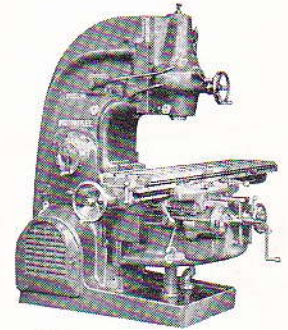
1200-1800 SERIES SIMPLEX



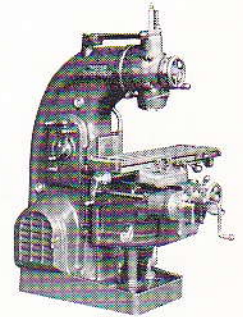
1200-1800 SERIES DUPLEX



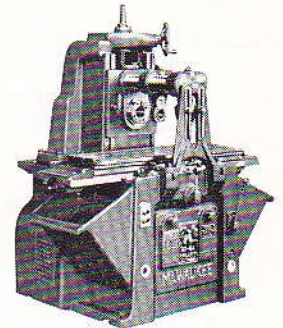
M-SERIES
SIMPLEX



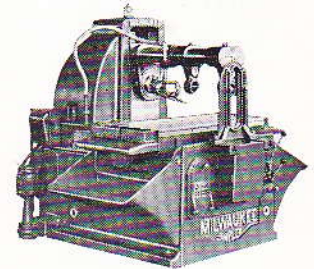
MODEL 4H VERTICAL



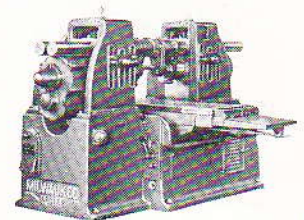
MODEL 2HL VERTICAL



M SERIES SIMPLEX



1200 SERIES SIMPLEX



1800 SERIES DUPLEX

VERTICAL

in Inches

C. Min.	C. Max.	D	E	F	G
0	16 1/4	87 3/8	55 3/8	44	4 3/16
0	15 1/4	87 1/2	55 3/8	44	4 3/16
0	18 1/4	87 3/8	69 3/4	46	
0	17 1/4	92 1/8	58 3/8	46	5 3/16
0	16	92	58 3/8	46	5 3/16
0	17 1/4	92	70	46	
0	17 1/16	99 3/4	62 1/2	48	6 3/8
0	15 1/16	99 3/4	62 1/2	48	6 3/8
0	19 1/16	99 3/8	75 3/8	50	
0	17 1/16	113 3/4	62 1/2	48	6 3/8
0	15 1/16	113 3/8	62 1/2	48	6 3/8
0	19 1/16	113 3/4	74	50	
0	18 1/8	117 3/4	66 1/4	50	7 1/4
0	16 1/2	117 3/8	66 1/4	50	7 1/4
0	21	117 3/4	81 3/4	52 3/4	
0	18 1/8	140 3/4	66 1/4	50	7 1/4
0	16 1/2	140 3/4	66 1/4	50	7 1/4
0	21	140 3/4	81 3/4	52 3/4	
0	20	144	71	55	8 5/16
0	18 1/8	142 1/4	71	55	8 5/16
0	22	144 3/8	89	57	
0	20	166	71	55	8 5/16
0	18 1/8	164 1/8	71	55	8 5/16
0	22	166	89	57	
0	20	166	71	55	8 5/16
0	22	166	89	57	

BED TYPE MACHINES — SIMPLEX • DUPLEX

1200 - 1800 SERIES SIMPLEX

Machine Data	1224	1236	1248	1824	1836	1848	1854
A	6 3/8"	6 3/8"	6 3/8"	6 3/8"	6 3/8"	6 3/8"	6 3/8"
B (Min.)	3 3/8"	3 3/8"	3 3/8"	3 3/8"	3 3/8"	3 3/8"	3 3/8"
B (Max.)	10 7/8"	10 7/8"	10 7/8"	10 7/8"	10 7/8"	10 7/8"	10 7/8"
C (Min.)	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"
C (Max.)	12 1/2"	12 1/2"	12 1/2"	12 1/2"	12 1/2"	12 1/2"	12 1/2"
D (Max.)	23 1/2"	23 1/2"	23 1/2"	29 1/2"	29 1/2"	29 1/2"	29 1/2"
Table Working Surface	12"x42"	12"x54"	12"x66"	18"x42"	18"x54"	18"x66"	18"x72"
Power Table Feed	24"	36"	48"	24"	36"	48"	54"
Standard Feed Range	1/2"-20"	1/2"-20"	1/2"-20"	1/2"-20"	1/2"-20"	1/2"-20"	1/2"-20"
Number of Feeds	18	18	18	18	18	18	18
Power Rapid Traverse	120"/min.	120"/min.	120"/min.	120"/min.	120"/min.	120"/min.	120"/min.
Standard Speed Range	30-200	30-200	30-200	30-200	30-200	30-200	30-200
Number of Speeds	10	10	10	10	10	10	10
Horsepower	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2
Weight (Lbs.)	7400	7800	8100	8000	8400	8800	9000

1200 - 1800 SERIES DUPLEX

Machine Data	1224	1236	1248	1836	1848	1854
A	6 3/8"	6 3/8"	6 3/8"	6 3/8"	6 3/8"	6 3/8"
B (Min.)	7 3/4"	7 3/4"	7 3/4"	13 3/4"	13 3/4"	13 3/4"
B (Max.)	21 3/4"	21 3/4"	21 3/4"	27 3/4"	27 3/4"	27 3/4"
C (Min.)	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"
C (Max.)	12 1/2"	12 1/2"	12 1/2"	12 1/2"	12 1/2"	12 1/2"
Table Working Surface	12"x42"	12"x54"	12"x66"	18"x54"	18"x66"	18"x72"
Power Table Feed	24"	36"	48"	30"	48"	54"
Standard Feed Range	1/2"-20"	1/2"-20"	1/2"-20"	1/2"-20"	1/2"-20"	1/2"-20"
Number of Feeds	18	18	18	18	18	18
Power Rapid Traverse	120"/min.	120"/min.	120"/min.	120"/min.	120"/min.	120"/min.
Standard Speed Range	30-200	30-200	30-200	30-200	30-200	30-200
Number of Speeds	10	10	10	10	10	10
Horsepower	10	10	10	10	10	10
Weight (Lbs.)	10750	11050	11350	11450	11750	12200

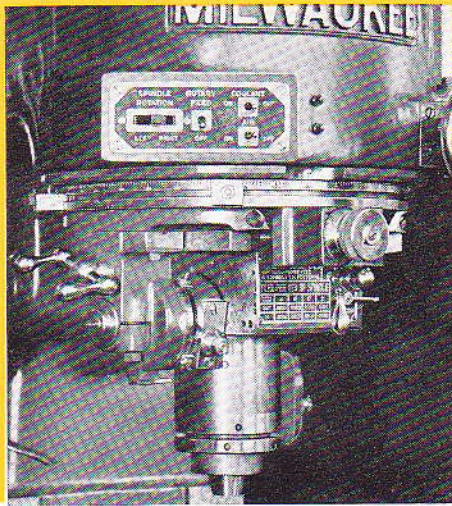
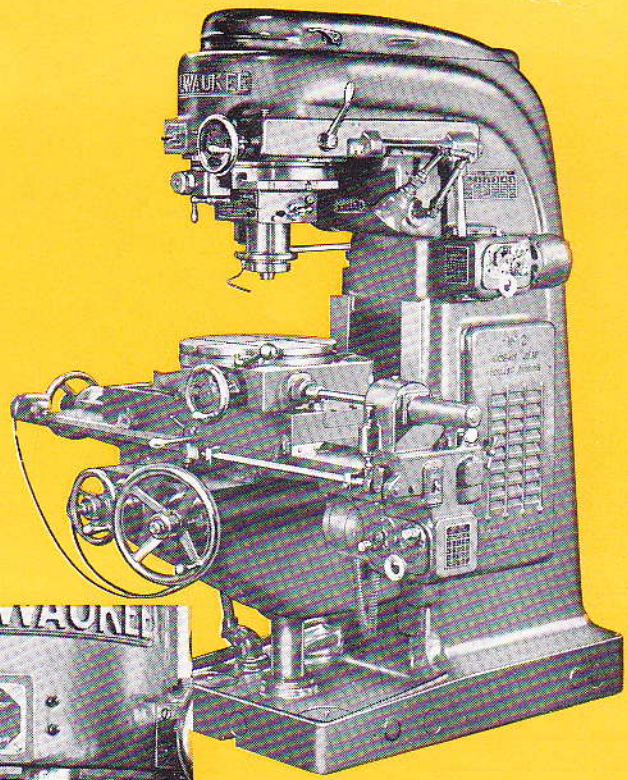
M - SERIES SIMPLEX

Machine Data	M-18	M-24	M-30
A	5 1/16"	5 1/16"	5 1/16"
B (Min.)	3 1/4"	3 1/4"	3 1/4"
B (Max.)	7 1/4"	7 1/4"	7 1/4"
C (Min.)	3"	3"	3"
C (Max.)	11"	11"	11"
D (Max.)	14 3/8"	14 3/8"	14 3/8"
Table Working Surface	13"x34"	13"x40"	13"x46"
Power Table Feed	18"	24"	30"
Standard Feed Range	1/2" to 20"	1/2" to 20"	1/2" to 20"
Number of Feeds	16	16	16
Power Rapid Traverse	150"/min.	150"/min.	150"/min.
Standard Speed Range	20-500 r.p.m.	20-500 r.p.m.	20-500 r.p.m.
Number of Speeds	16	16	16
Horsepower	5	5	5
Weight (Lbs.)	4525	4600	4675

THE ROTARY HEAD *Milwaukee* MILLING MACHINE

The performance record of this thoroughly different precision machine tool in the production of aircraft parts, optical instruments, plastics, forgings, die-castings, molds, hobs and related work has been outstanding. The rotary head method of milling permits the usual job to be done faster and the difficult job easier. Work can be planned, laid out and completed at a single setup with exceptional accuracy.

Because you can't afford to overlook the possibilities of this machine tool, investigate its advantages in connection with your work by writing to Dept. RH., Kearney & Trecker Products Corporation.

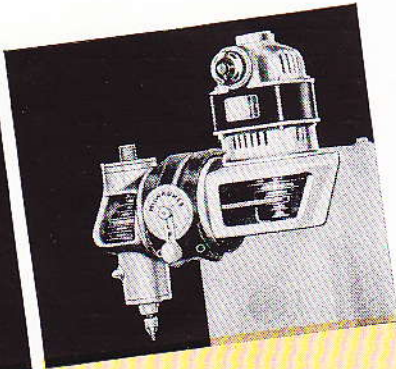


The unique feature of this unusual machine is the rotary movement of the head carrying the work spindle. Circular and angular movements of the spindle are thus made possible, and combined with the longitudinal and lateral movements of the table, they provide for cutting of all manner of geometrical shapes.



MIDGETMILL

The Midgetmill is a completely universal milling attachment, designed for application on the overarms of any make milling machine. This attachment mills, drills and bores with precision and speed. A Thou-Meter, reading in thousandths of an inch, eliminates costly errors in close work.



SPEEDMILL

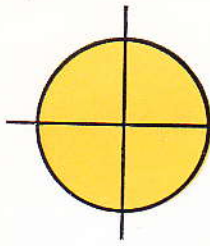
The Speedmill attachment is particularly efficient when using small end mills for accurate toolroom work. Speeds are available up to 5300 r.p.m. Applicable to any milling machine overarm, this attachment can be relied upon to perform smoothly with utmost rigidity in operation.



CENTER SCOPE

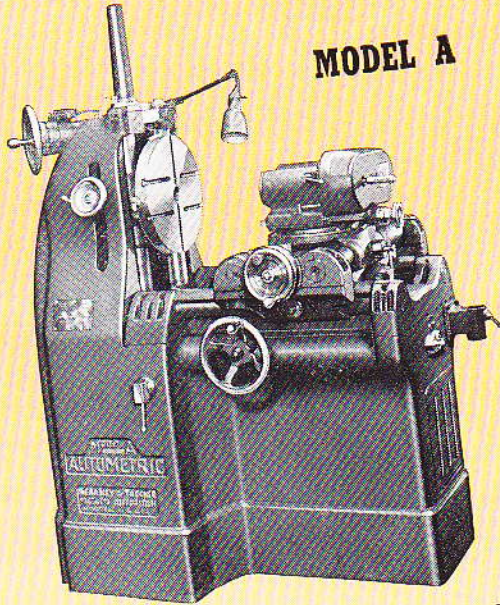


The Center Scope is an optical centering and locating tool that can be easily and quickly used on any machine to center work reference lines to a spindle axis. It is a rugged shop tool with 45X magnification. Use of the Center Scope saves time and money—it improves the quality of work and removes human error in setting up precision work. With the Center Scope you reject the source of error—not the finished product.



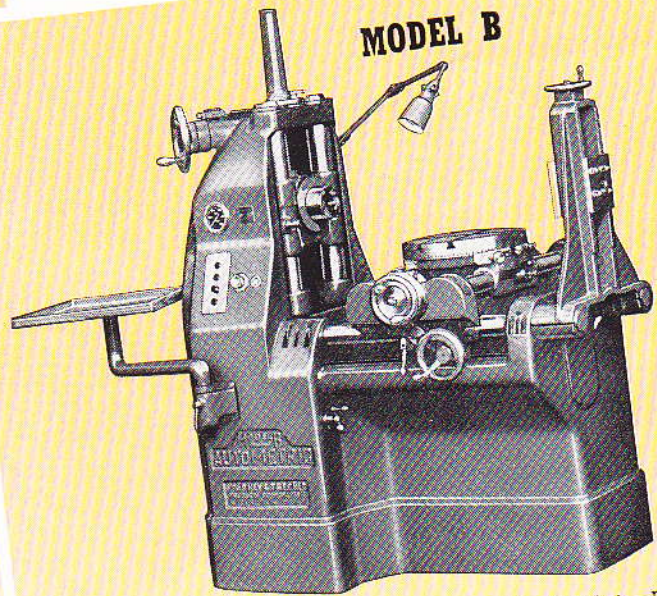
AUTOMETRIC

JIG BORING MACHINES



MODEL A

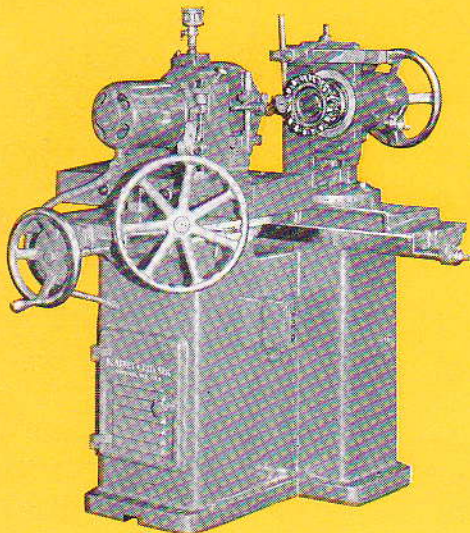
The Model A Autometric jig boring machine is an extremely versatile tool. Besides its ability to bore holes accurately at any angle, it is equally dependable for locating, inspecting and layout work. These various operations can be performed in a single setup. Investigate its possibilities — learn of its advantages. Write for Bulletin SW-A.



MODEL B

Its ability to handle a complete job in a single setup — more accurately and more rapidly than ever before — makes the Model B Autometric indispensable equipment for the precise boring of a wide variety of parts. Accurate measuring through the Autometric method is an ever-present feature. Write for Bulletin SW-B.

FACE MILL GRINDER



THREE-BEARING
WHEEL SPINDLE
WITH FLYWHEEL

JEWELLED BEARING
DIAL INDICATOR

CAPACITY — ALL
FACE MILLS UP TO
16" IN DIAMETER

SPINDLE HEAD UPRIGHT
SWIVELS 360° —
VERTICAL RANGE 5 3/4"

13" SADDLE CROSS
FEED RANGE

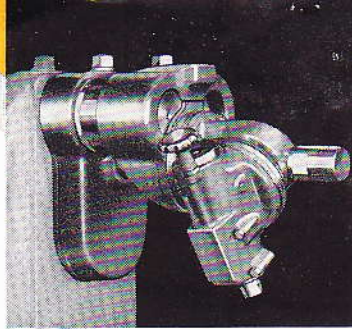
No. 50 STANDARD
TAPER SPINDLE

The Milwaukee Face Mill Grinder is a heavy duty machine, incorporating every feature needed for properly sharpening face milling cutters, particularly those of the tungsten-carbide type. The basic design of this machine tool embodies strength, precision and capacity. Results from its use include: (1) faster cutting, (2) more accurate work, (3) better finishes, and (4) longer cutter life.

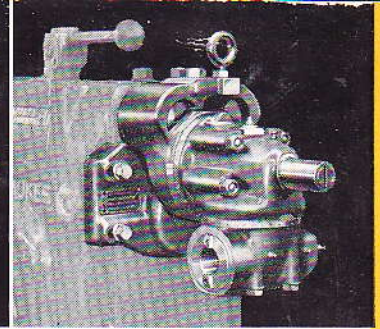
Milwaukee

MILLING MACHINE ATTACHMENTS

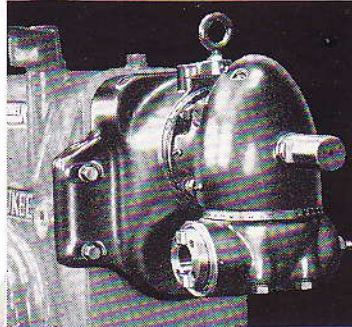
The choice of attachments to broaden the working range of a standard milling machine is an important one. Milwaukee Milling Machine attachments and accessories — built to the same fine standards of accuracy found in Milwaukee Milling Machines — are available in types and sizes to meet the needs of any shop. Complete information may be obtained by requesting the bulletins listed under the illustrations.



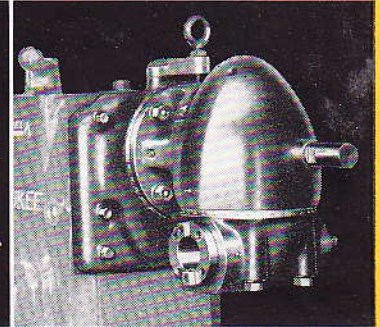
LIGHT HI-SPEED
UNIVERSAL MILLING ATTACHMENTS
(Bulletin No. SW-751)



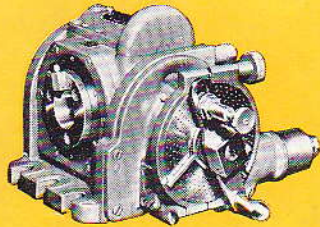
STANDARD HI-SPEED
UNIVERSAL MILLING ATTACHMENTS
(Bulletin No. SW-754)



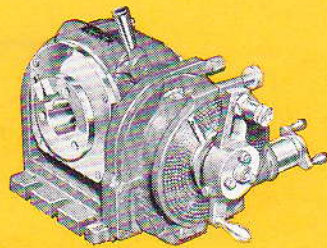
STANDARD UNIVERSAL
MILLING ATTACHMENTS
(Bulletin No. SW-658)



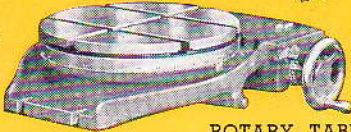
HEAVY DUTY UNIVERSAL
MILLING ATTACHMENTS
(Bulletin No. SW-753)



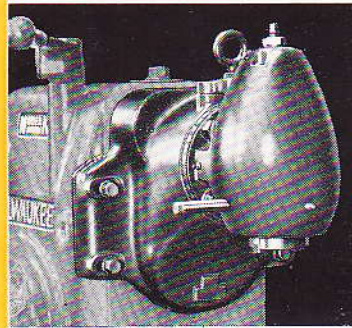
MODEL H-40-1
Indexing Ratio
DIVIDING HEAD
(Bulletin
No. SW-750)



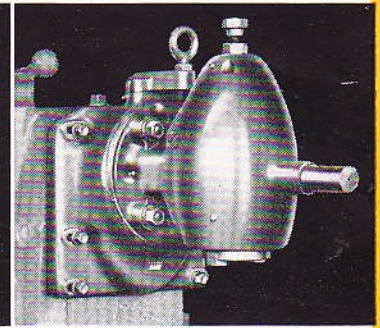
MODEL K-5-1
Indexing Ratio
DIVIDING HEAD
(Bulletin
No. SW-650)



ROTARY TABLES
(Bulletin No. SW-652)



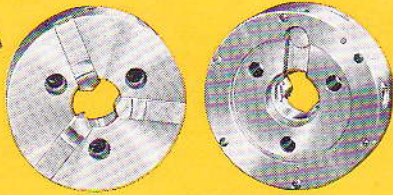
STANDARD VERTICAL
MILLING ATTACHMENTS
(Bulletin No. SW-755)



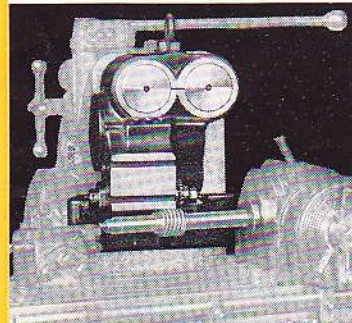
HEAVY DUTY VERTICAL
MILLING ATTACHMENTS
(Bulletin No. SW-752)



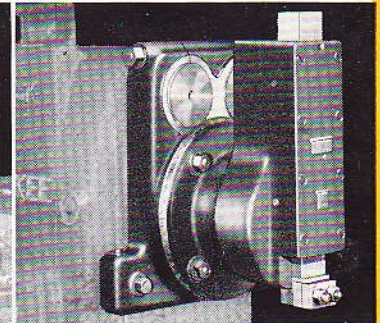
ARBORS AND
ACCESSORIES
(Catalog
No. SW-42)



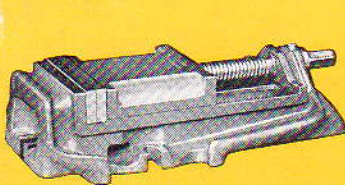
UNIVERSAL CHUCKS
(Bulletin No. SW-663)



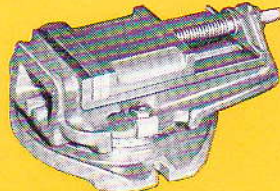
THREAD MILLING
ATTACHMENT
(Bulletin No. SW-653)



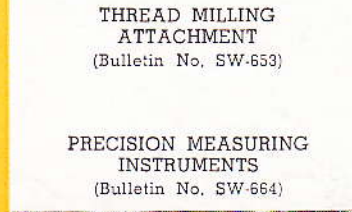
SLOTTING
ATTACHMENT
(Bulletin No. SW-656)



PLAIN VISES
(Bulletin No. SW-657)



SWIVEL VISES
(Bulletin No. SW-657)



PRECISION MEASURING
INSTRUMENTS
(Bulletin No. SW-664)



FULL-BACK
FACE MILL CUTTERS
(Bulletin No. SW-663)

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