

HARDINGE

SUPER-PRECISION

LATHES COLLETS
CHUCKING MACHINES FEED FINGERS
TOOL ROOM LATHES PADS
SECOND OPERATION MACHINES COLLET CHUCKS
MILLING MACHINES COLLET INDEX FIXTURES



HARDINGE

WRITE OR CALL
HARDINGE BROTHERS, INC.
1420 COLLEGE AVENUE
ELMIRA, NEW YORK 14902
W. C. HASKINS - SALES ENGINEER

SUPER-PRECISION

Model ASM-5C

The Hardinge Automatic is designed for fast set-up and instant changeover on short runs. Designed for both bar work and second operation work.

NO CAMS—NO TAPE—NO PREPLANNING

Automatic operation is programmed directly at the ASM-5C machine during set-up.

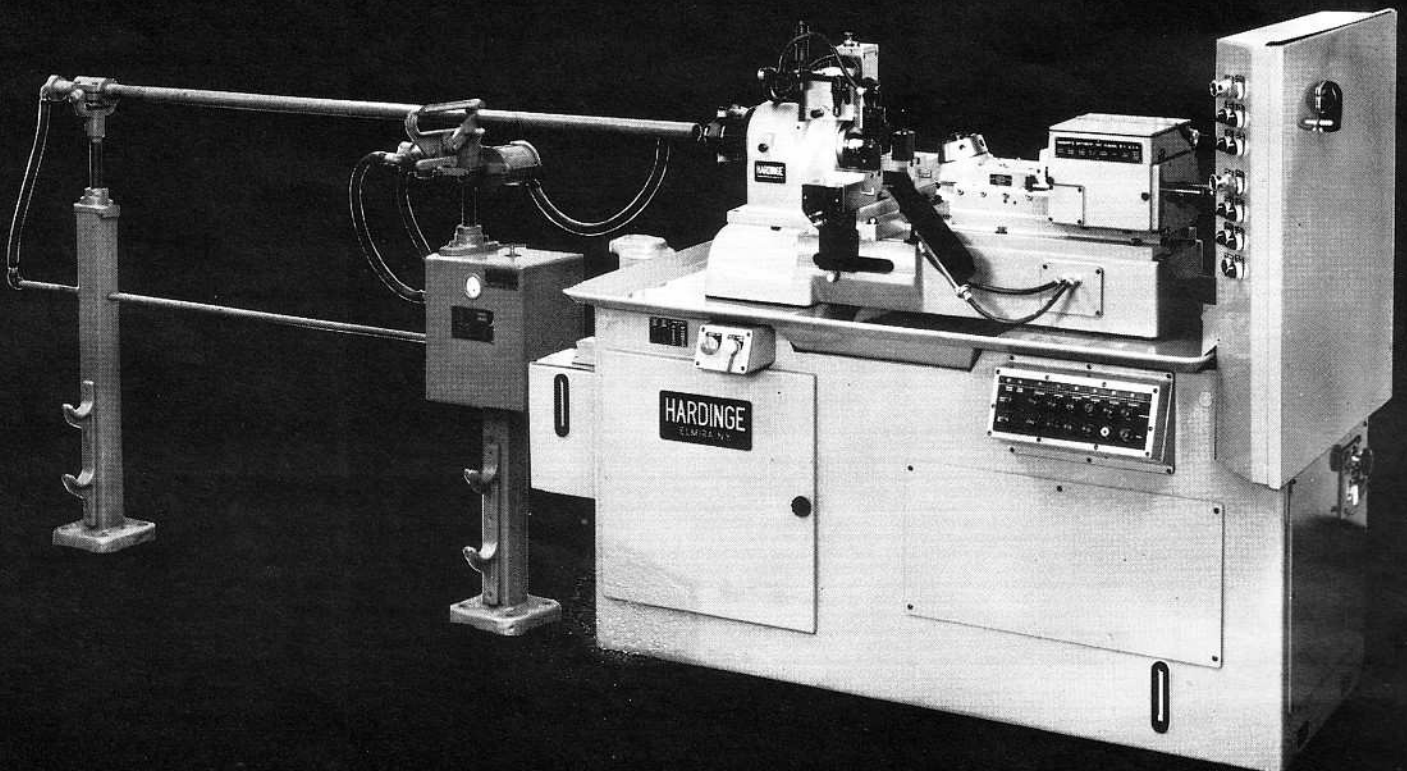
THREE INDEPENDENT SLIDES AND SIX TURRET STATIONS

Arranged to take standard low cost, simple tooling for fast, easy low cost set-up.

A wide variety of work can be done at great savings—in many cases, a combination of standard tool bits is all the tooling required.

Specifications:

- 1 $\frac{1}{16}$ " Collet Capacity
- 2 Independent Cross Slides
- 1 Vertical Slide
- 6 Station Turret
- Infinitely Adjustable Feeds
- Speeds to 4200 R.P.M.



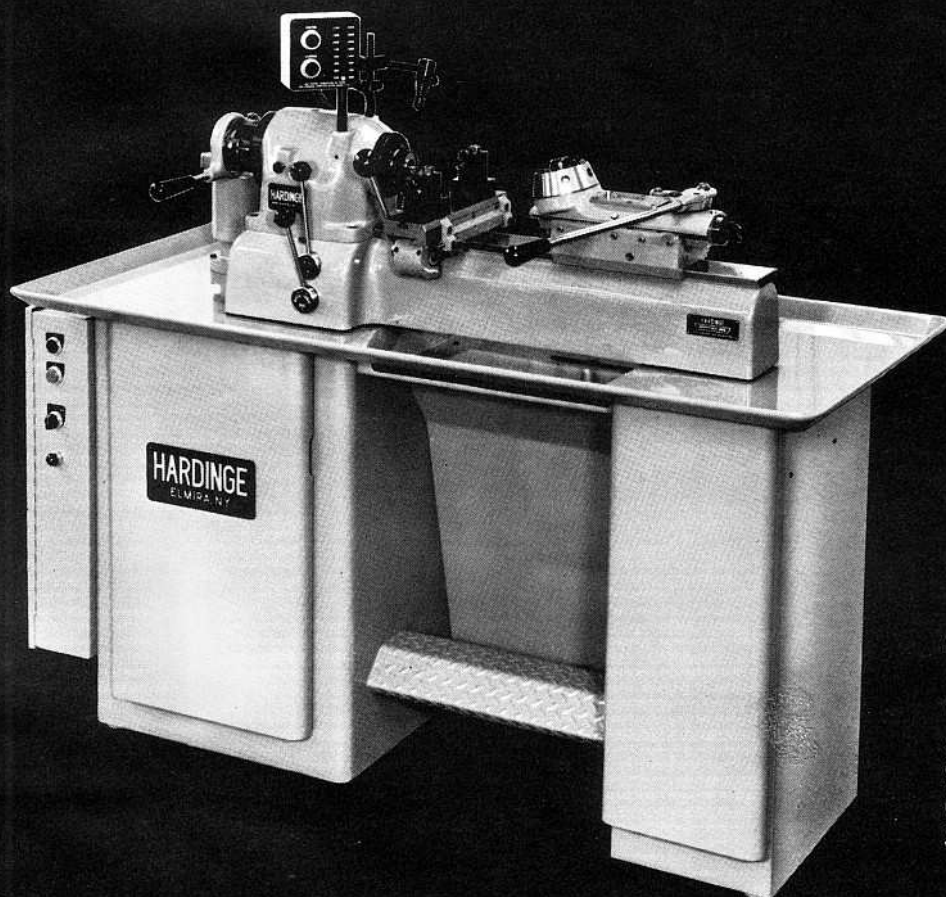
PRODUCTION MACHINES

Hardinge Super-Precision Production Machines are fast, rugged and accurate for high speed production of close tolerance work. The collet seats directly in the hardened and precision ground spindle affording $1\frac{1}{16}$ " through collet capacity. Adaptation of step chucks permit 6" chucking capacity. Machines are equipped with instant speed selection variable drive units. Ask your Hardinge Sales Engineer for complete bulletins, specifications and prices. You will find that it costs no more for quality and accuracy backed by years of manufacturing experience.

Model DSM 59

This time-tested production machine is easy to set up and enables relatively inexperienced operators to turn out parts rapidly within close tolerances and to fine finish. Operations on this machine reduce expensive tooling, upkeep, and down time of automatics.

3



Specifications:

- 1 $\frac{1}{16}$ " Collet Capacity
- 6" Step Chuck Capacity
- 5" Jaw Chuck Capacity
- 9" Fixture Diameter
- 6 Position Turret
- Speeds to 3500 R.P.M.

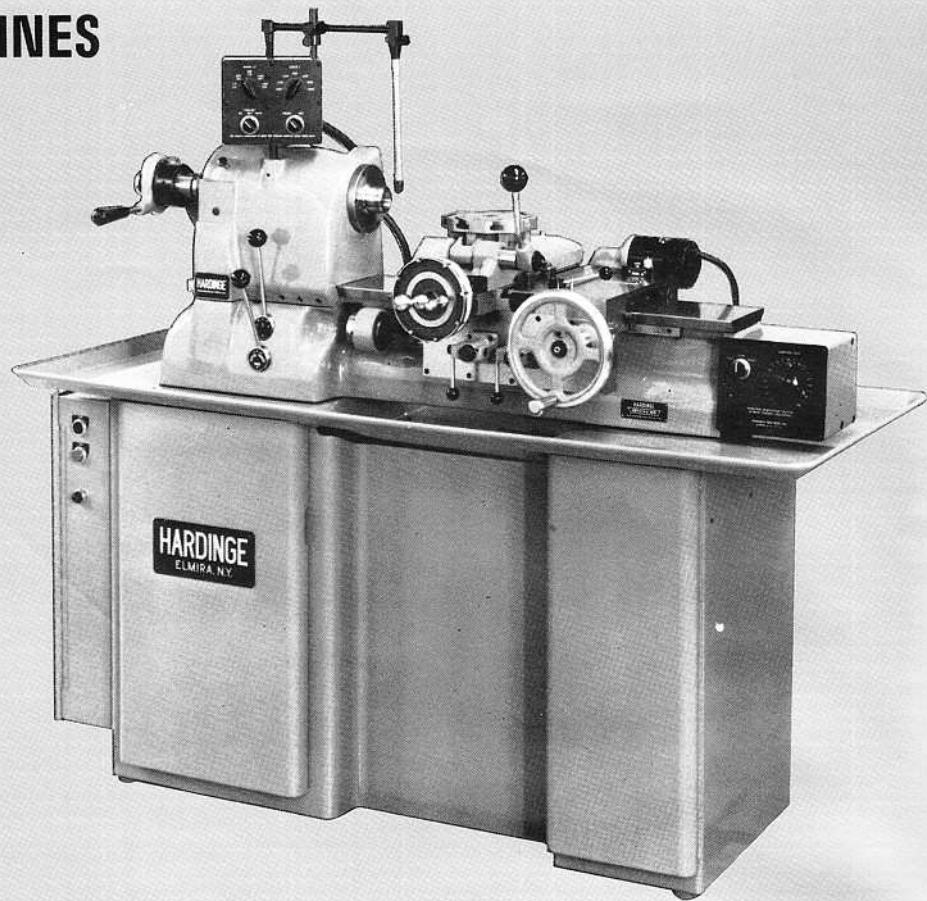
SUPER-PRECISION **PRODUCTION MACHINES**

Model HC

The Model HC Chucking Machine can finish diameters, shoulders, and end faces, all concentric with each other. Adjustable, exact cutting positions produce closer tolerance parts on a production basis. It assures tool room accuracy and low part cost.

Specifications:

- 1 $\frac{1}{16}$ " Collet Capacity
- 6" Step Chuck Capacity
- 5" Jaw Chuck Capacity
- 9" Fixture Diameter
- 8 Station Turret
- Speeds to 3000 R.P.M.

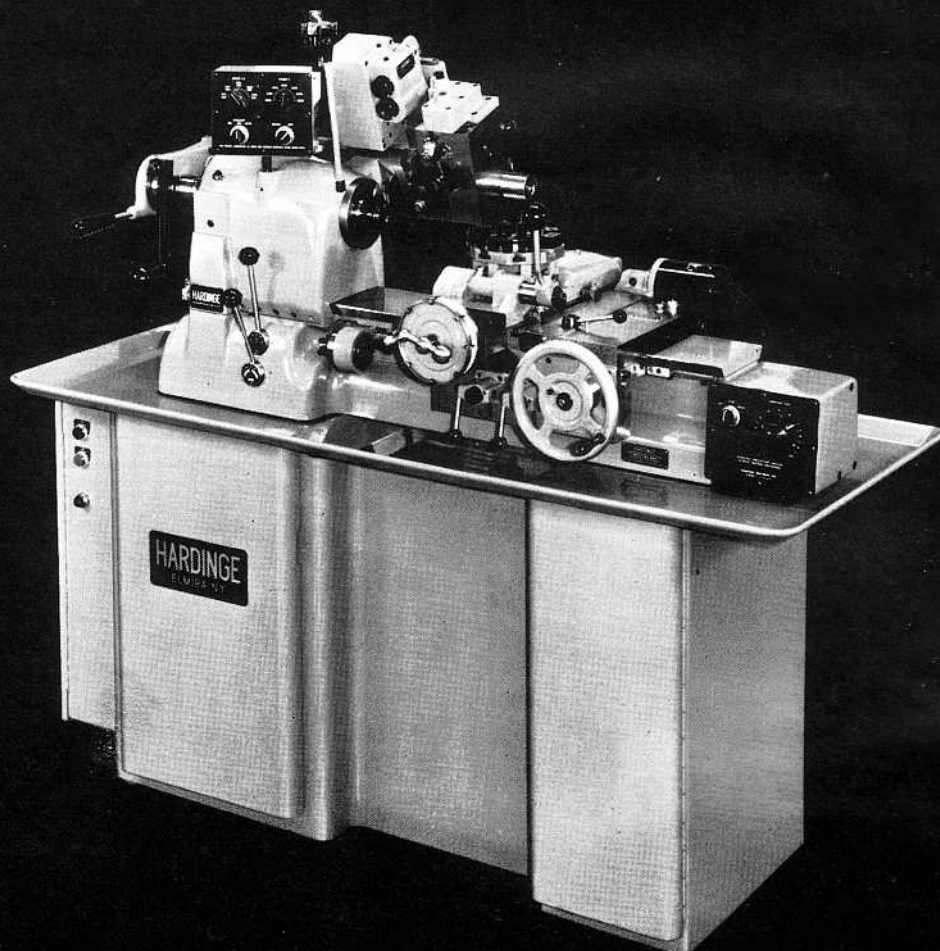


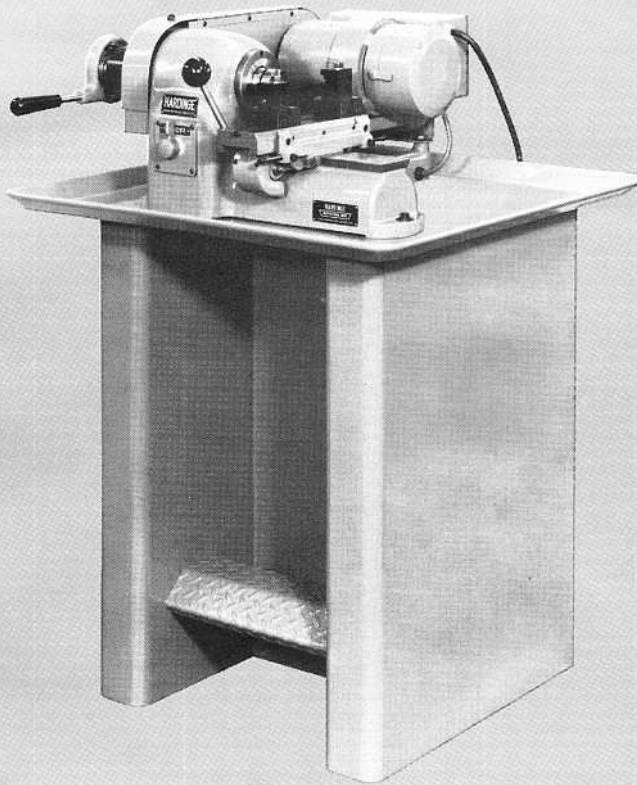
Model HC-AT With Automatic Threading Head

The Model HC-AT Chucking Machine can finish diameters, shoulders, and end faces, and cut precision threads in one setting—all concentric with each other. Adjustable, exact cutting positions produce closer tolerance parts on a production basis. It assures tool room accuracy and low part cost.

Specifications:

- 1 $\frac{1}{16}$ " Collet Capacity
- 6" Step Chuck Capacity
- 5" Jaw Chuck Capacity
- 9" Fixture Diameter
- 8 Station Turret
- 6" External, 5" Internal
Maximum Diameter for
Threading
- 1 $\frac{3}{4}$ " Maximum Length
for Threading
- 12-64 Pitch Threads (Lead
Screw and Follower)
- Speeds to 3000 R.P.M.





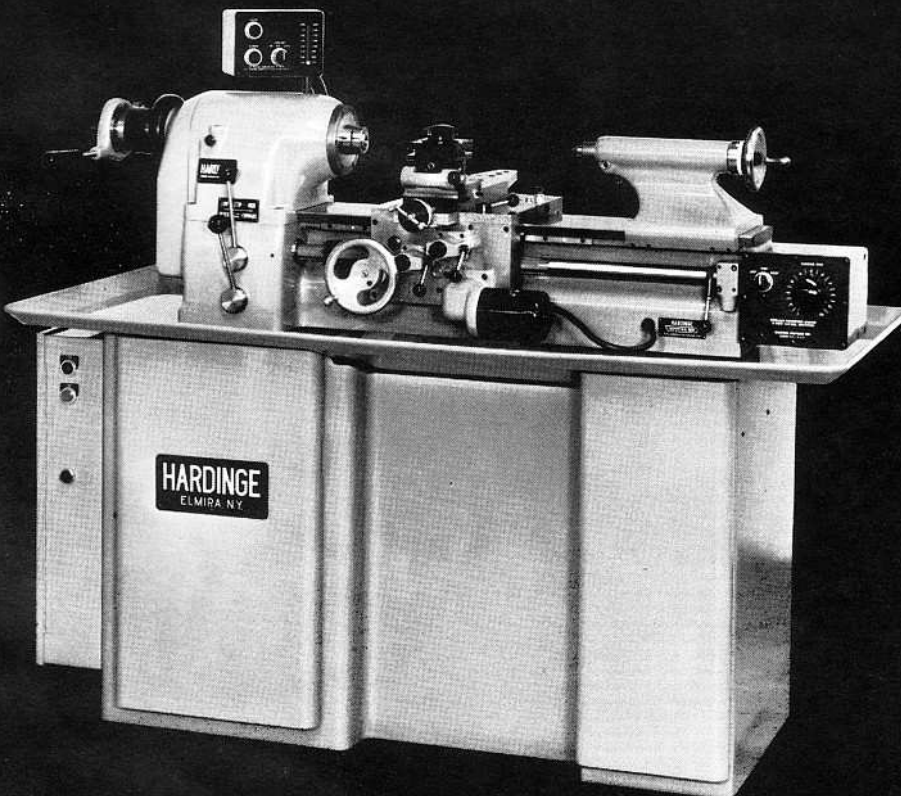
Model HSL 59

The Hardinge Speed Lathe is a self contained machine ideally suited for simple machining operations or polishing and finishing work. The speed lathe compactness permits installation on any convenient height work bench. Also available with welded steel pedestal base.

Specifications:

1 $\frac{1}{16}$ " Collet Capacity
6" Step Chuck Capacity
5" Jaw Chuck Capacity
9" Swing
Speeds to 3000 R.P.M.

5



Model TFB-H

A high speed machine for precision power feed turning, facing, and boring. Easy and fast to operate. The Model TFB-H is a rugged machine intended for manufacturing parts which do not require thread cutting operations.

Specifications:

1 $\frac{1}{16}$ " Collet Capacity
6" Step Chuck Capacity
5" Jaw Chuck Capacity
11" Swing
18" Center Distance
Speeds to 3000 R.P.M.

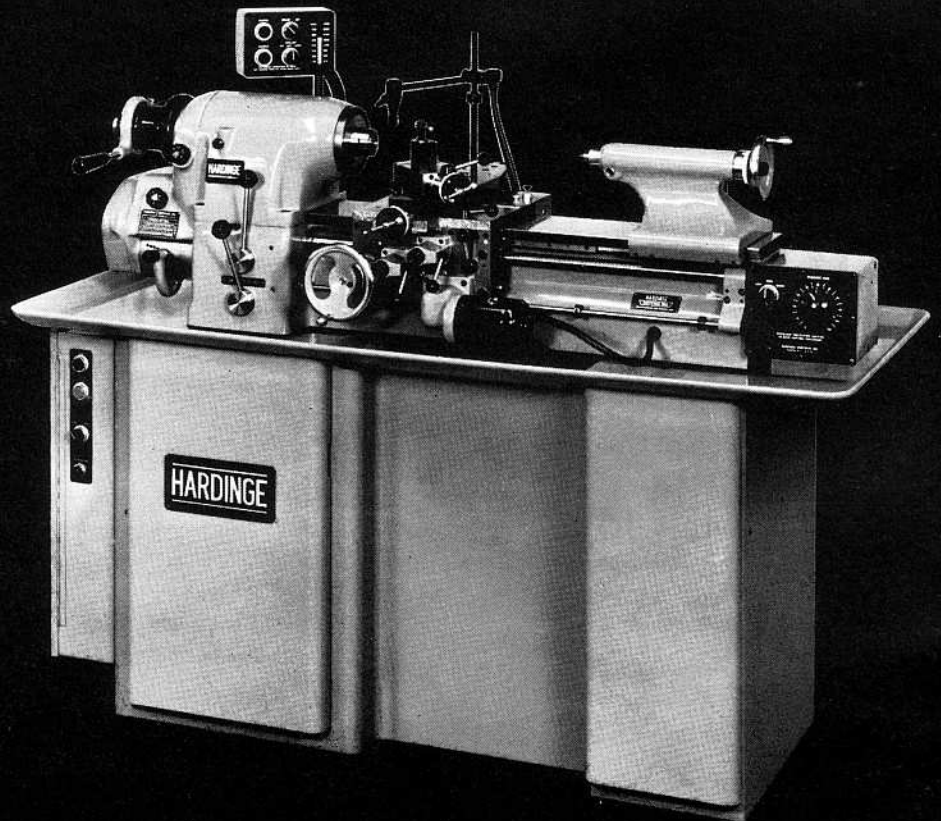
SUPER-PRECISION **TOOL ROOM MACHINES**

Model HLV-H

Designed primarily to fill the gap between the plain precision lathe and the heavy duty engine lathe. Extreme accuracy, high spindle speeds, and thread cutting ability are coupled with ease of operation.

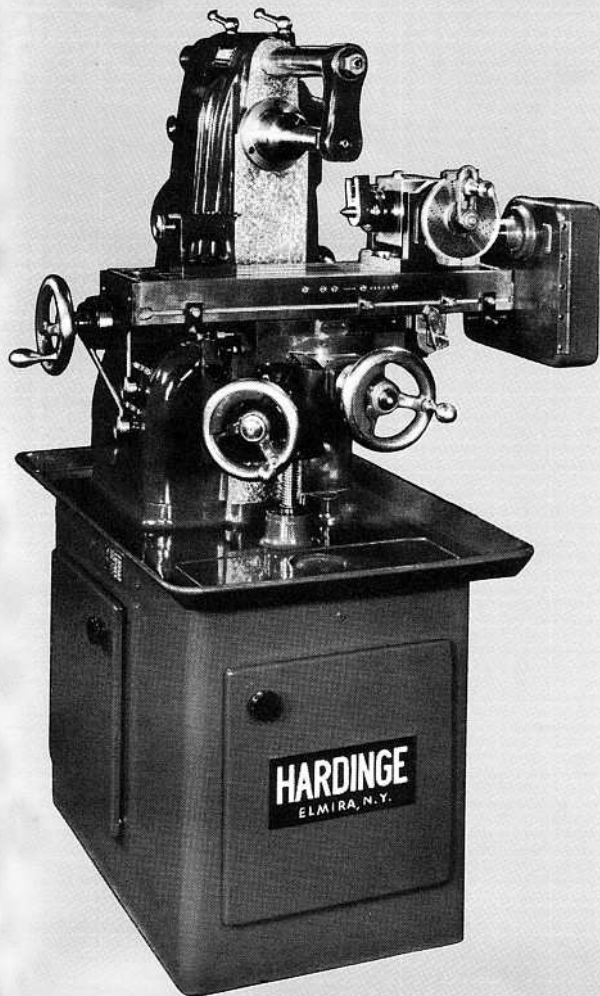
Hardinge Super-Precision Lathes and Milling Machines meet the close tolerance and fine finish specifications of tool rooms, laboratories, research and development departments.

Hardinge super-precision machines shown on these two pages are companion precision machines for straight turning, milling, taper turning, boring, threading, and facing with the feature of interchangeable collets, nose fixtures and attachments. Ask your Hardinge Sales Engineer for complete bulletins, specifications and prices.



Specifications:

1 $\frac{1}{16}$ " Collet Capacity
6" Step Chuck Capacity
18" Center Distance
Thread Range 11 to 108
11" Swing
Speeds to 3000 R.P.M.



Model UM

The use of Hardinge high speed precision milling machines for your small work will give you the advantages of lower investment, saving in floor space, lower power consumption, higher speeds, and saving of valuable production time because of the proper relation between the machine and the work.

Specifications:

1 $\frac{1}{16}$ " Collet Capacity for Cutter Spindle
and Dividing Head
25" x 6-1/2" Table
Table Power Feed
Speeds to 1850 R.P.M.

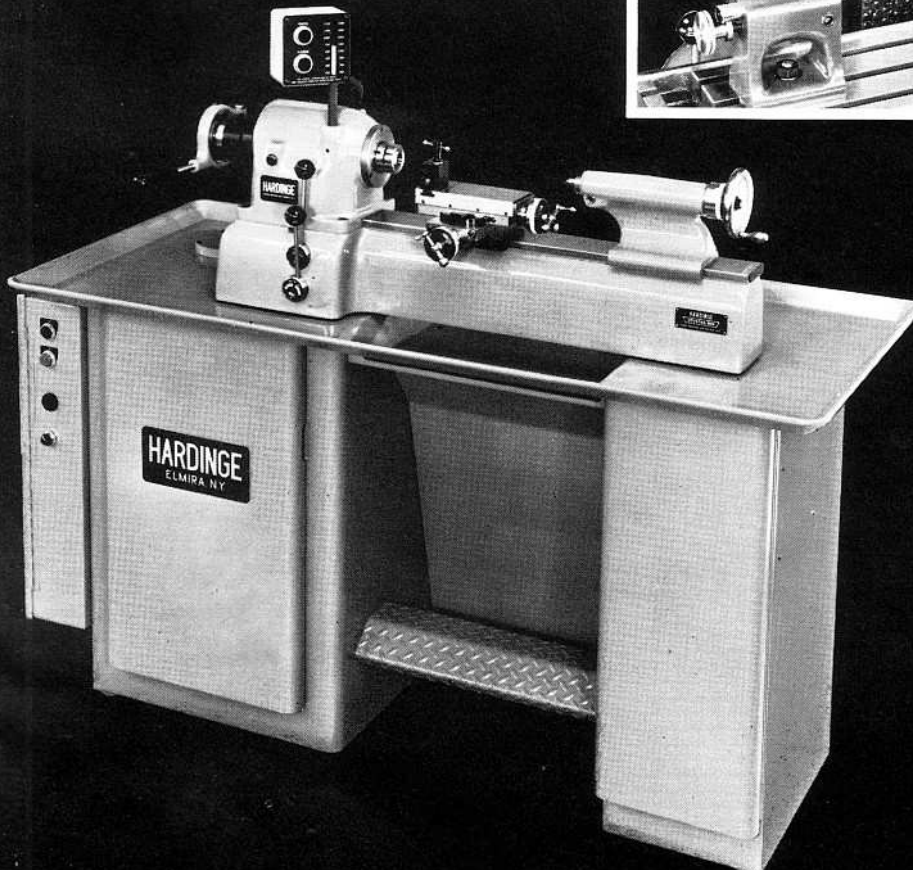
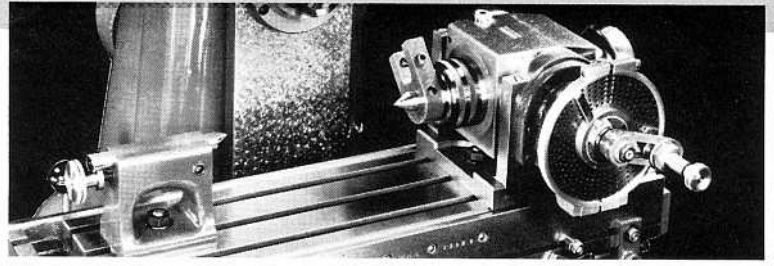
Dividing Head

The HARDINGE Dividing Head is designed for extreme accuracy and maximum convenience in operation. The sturdy construction is shown by the accompanying illustration.

The draw spindle is of two-piece construction. The draw spindle handle can be removed without loosening the collet; thus, collet work can be done with the head in the vertical position or at any other desired angle.

Specifications:

1 $\frac{1}{16}$ " Collet Capacity 5" Jaw Chuck Capacity
6" Step Chuck Capacity 7" Swing



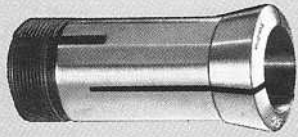
Model DV59

Designed to meet the requirements of extreme lasting accuracy, high spindle speeds, and the ease in operation required for the smaller diameter work range found in every tool room, laboratory, and production department.

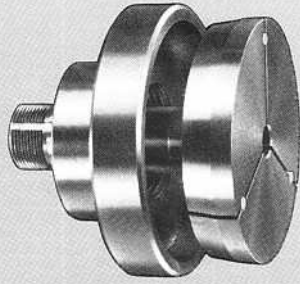
Specifications:

1 $\frac{1}{16}$ " Collet Capacity
6" Step Chuck Capacity
5" Jaw Chuck Capacity
9" Swing
Speeds to 3500 R.P.M.

SUPER-PRECISION TOOLING FOR HARDINGE TOOL ROOM AND PRODUCTION MACHINES



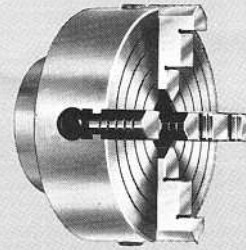
5C Collets



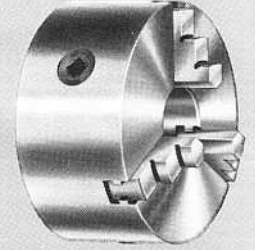
Step Chucks



Fixture Plates



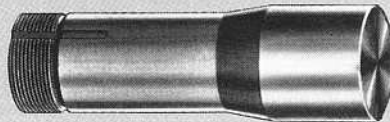
Independent Jaw Chuck



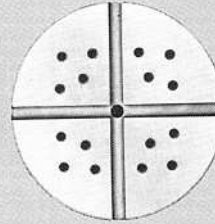
Universal Jaw Chuck



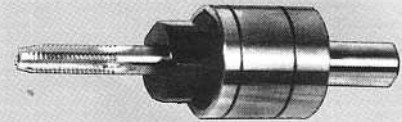
Collet Stop



Plug Chuck



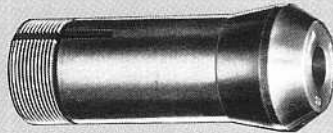
Face Plates



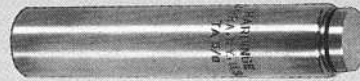
Releasing Tap Holder



Collet Stop



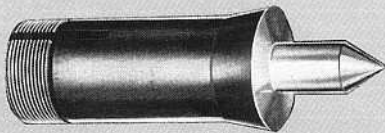
Taper Hole Collets



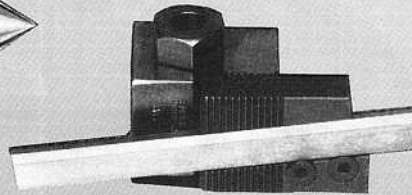
Revolving Stock Stop



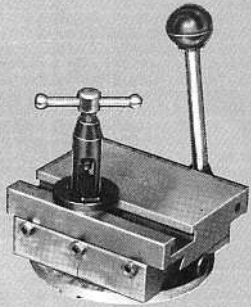
Drill Chuck



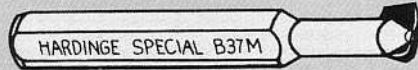
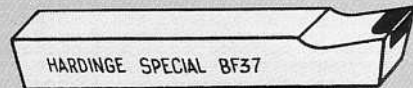
Headstock Male Center



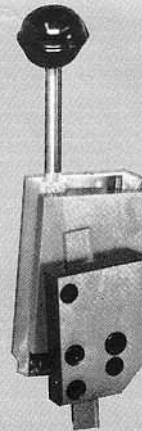
Cut-Off Tool Holder



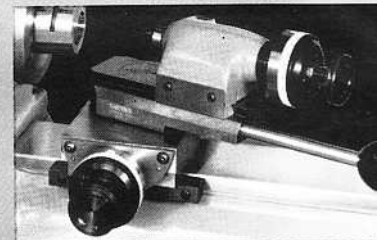
Straight and
Taper Turning Slide



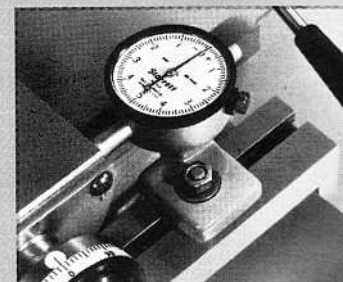
Carbide Cutting Tools



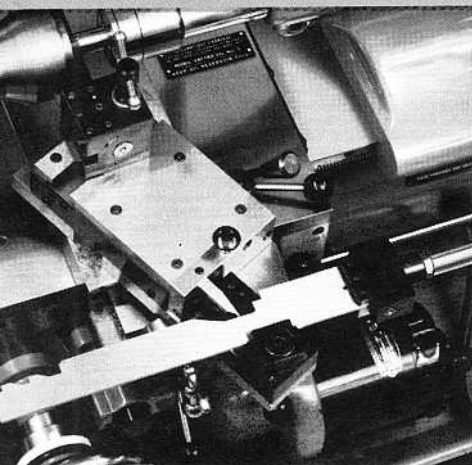
Vertical
Cut-Off Slide



Radius Turning Attachment



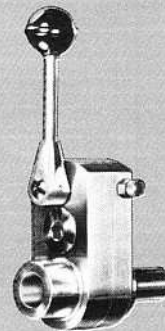
Indicator Stop



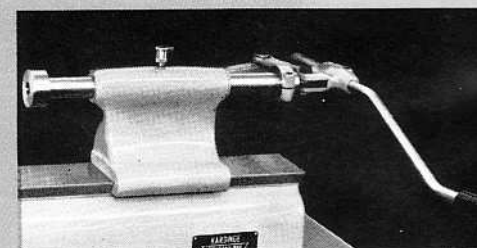
Contour Tracing Attachment



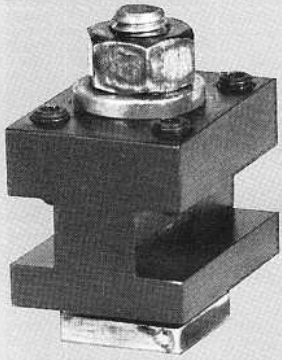
Tool Setting
Gage



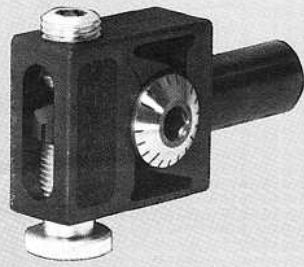
Quick-Acting
Recessing Tool



5 1/2" End Working Slide



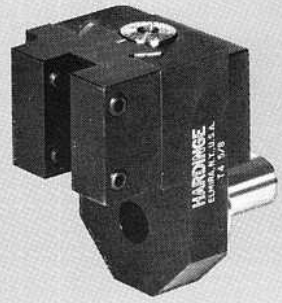
Double Tool Block



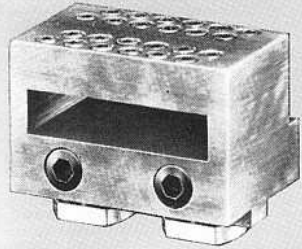
Microflex Tool Holder



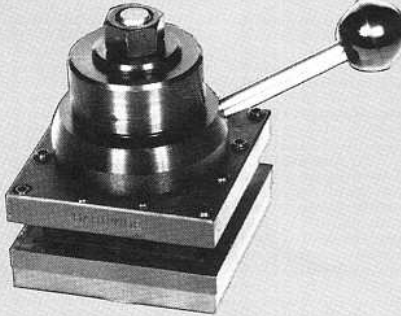
Quadruple Tool Holder



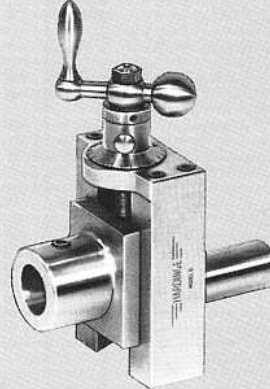
Adjustable Knee Tool Holder



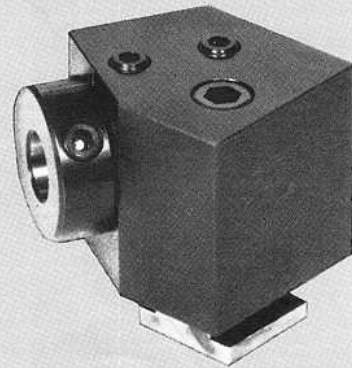
Multiple Tool Holder



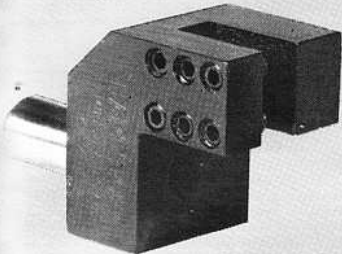
Square Indexing Turret



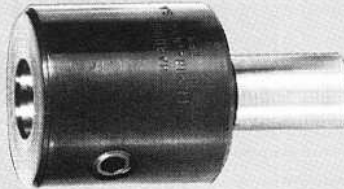
Slide Tool



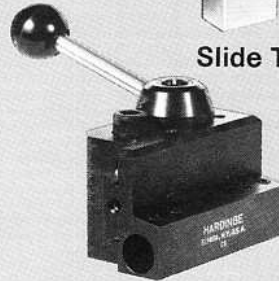
Boring Tool Holder



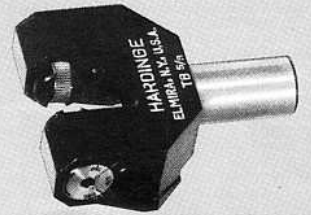
Knee Tool for Turret



Tool Holder Extension



Taper Slide



Knurling Tool Holder

HARDINGE-SJOGREN SPEED COLLET CHUCKS

Five-Collet Capacity Sizes

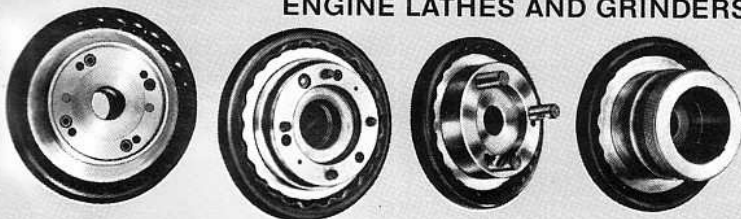
1 1/16" 1 3/8" 1 3/4"
2 1/4" 3 1/2"

Are you getting full value from your investment in tool room and engine lathes?

A Hardinge-Sjogren Speed Collet Chuck gives greater capacity, saves time, increases accuracy and assures better results.

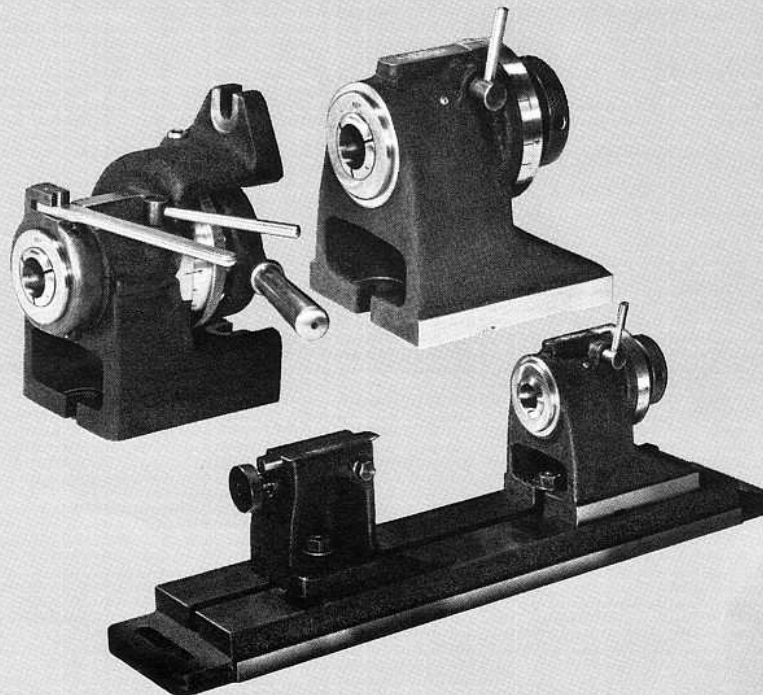
It is readily adapted for use on the spindle nose of your lathes, takes precision collets —enabling the operator to do better work ... faster!

FOR TOOL ROOM LATHES,
ENGINE LATHES AND GRINDERS



HARDINGE COLLET INDEX FIXTURES

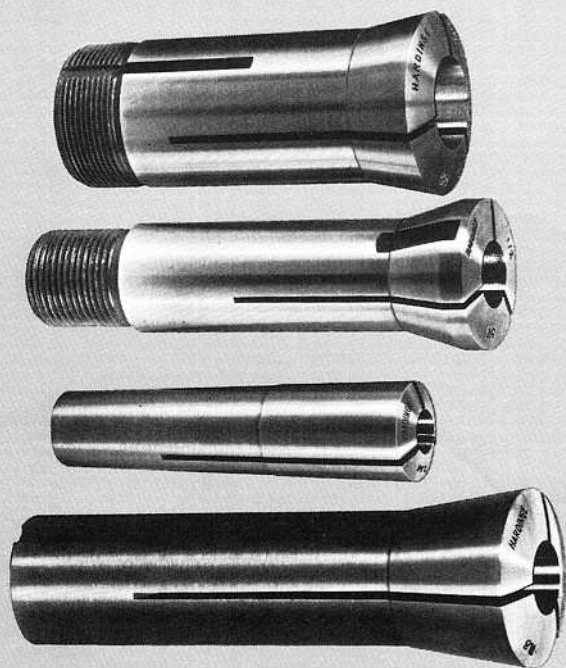
These fixtures are designed for maximum interchangeability on all chucking and indexing applications. They take step chucks, jaw chucks, and standard 5C Hardinge 1-1/16" capacity collets.



Hold Work Accurately—Index Rapidly

COLLETS FOR LATHES AND MILLING MACHINES

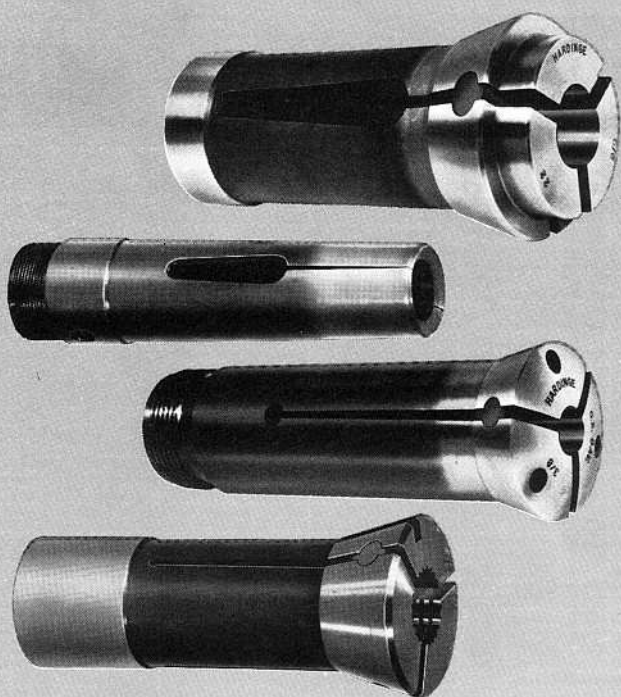
SPEED COLLET CHUCKS—COLLET INDEX FIXTURES



HARDINGE COLLETS FOR LATHES AND MILLERS

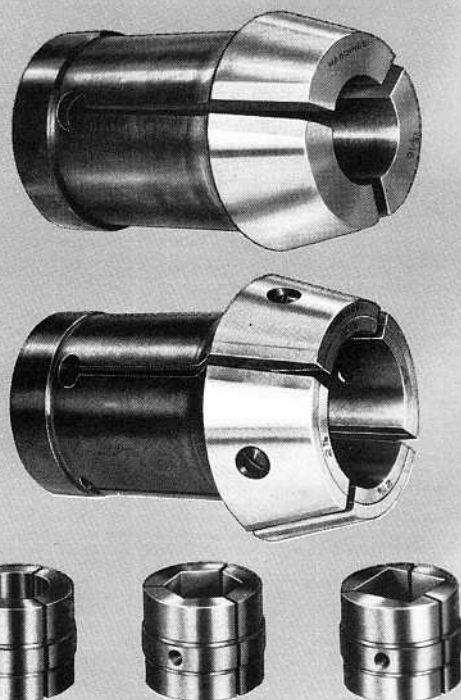
The name HARDINGE is a guarantee of accuracy and durability. Collets in all sizes are in stock for American, Cincinnati, Hardinge, Hendey, LeBlond, Lehmann, Lodge & Shipley, Monarch, Pratt & Whitney, Sebastian, South Bend, Springfield and other lathes and milling machines.

COLLETS AND FEED FINGERS FOR AUTOMATIC SCREW MACHINES, CHUCKING MACHINES AND TURRET LATHES



HARDINGE COLLETS AND FEED FINGERS

for Brown & Sharpe—Davenport—National Acme—Gridley and Acme—Gridley—New Britain—Cone—Greenlee—Warner & Swasey and Cleveland Automatics. Wickman, CVA, Index.

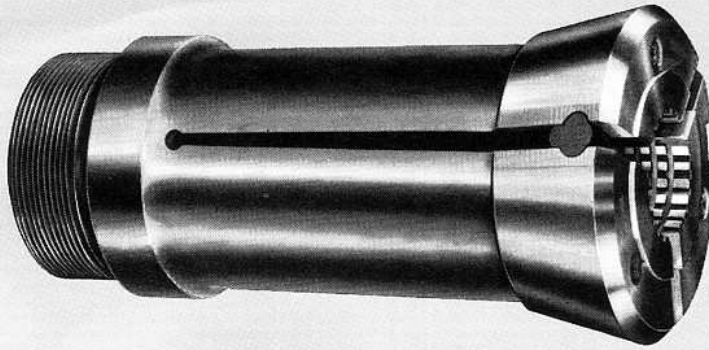


HARDINGE SOLID COLLETS, MASTER COLLETS AND PADS

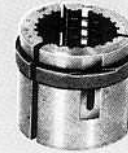
for your turret lathes—Gisholt, Warner & Swasey, Jones & Lamson, Bardons & Oliver, Foster, Morey, Simmons, Logan, Diehl, Advance, Pratt & Whitney, Oster, Midland and Defiance.

MASTER COLLETS • FEED FINGERS AND PADS

STYLE "S"
Master
Collets
and
Pads



For better performance at lower cost—Hardinge offers the only Master Collet with no work pressure on the screw and the only Master Feed Finger with no screws or pins to cause trouble.



ROUND



HEXAGON



SQUARE

HARDINGE Style "S" and Style "B" Masters and Regular Collets and Feed Fingers are available for: National Acme—Gridley and Acme-Gridley—New Britain—Cone—Greenlee—Warner & Swasey—Cleveland.



ROUND

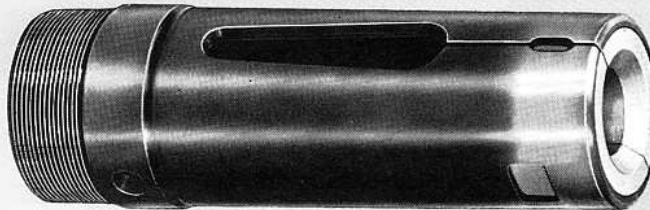


HEXAGON

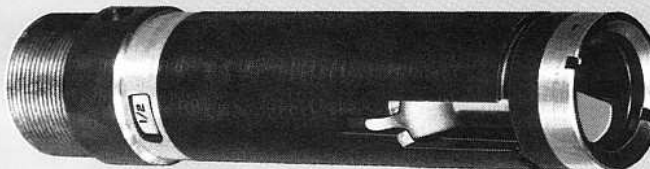


SQUARE

STYLE "B"
Master Feed Finger
and
Pads



STYLE 'AF'
Master Feed Finger
with
Snap-in Bushings
and Pads



HARDINGE Style 'AF' Master Feed Finger with Snap-in Bushings and Pads are available for: Gridley and Acme-Gridley—New Britain—Cone—Greenlee—Brown & Sharpe—Davenport.



The Hardinge 'AF' Master Feed Finger is designed for maximum operating efficiency and low cost. This new concept of feeding has been test-proved in many

automatic screw machine departments and because of superior performance is now standard equipment.

SNAP-IN BUSHINGS

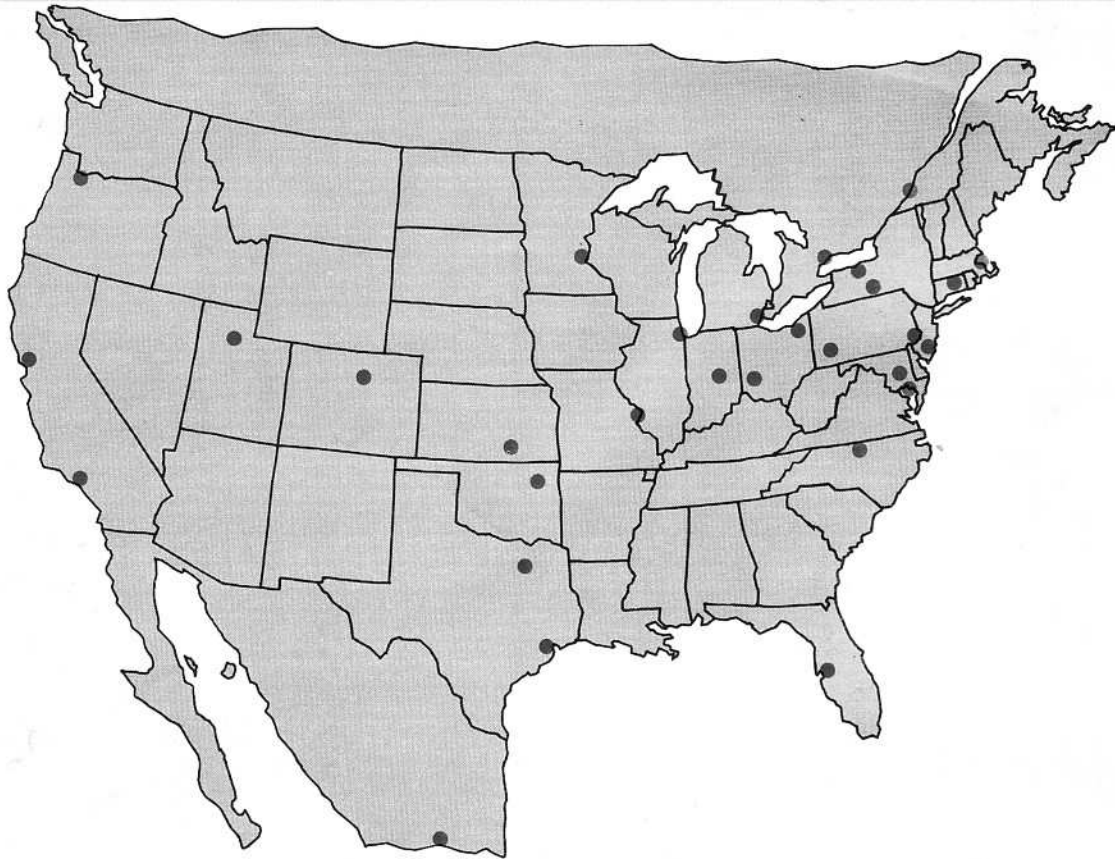
The screw machine industry has long recognized that a bushing to guide and support stock provides many desired advantages. Standard snap-in bushings are available in round and hexagon sizes. Both pads and bushings are interchangeable between automatics of the same capacity—this reduces your inventory cost.

PADS ADJUSTABLE FOR TENSION

The low-cost hardened steel or chromed hardened steel pads are adjustable for exact tension to properly feed bars or tubing of steel, brass, aluminum, copper, plastic or other materials. The pads are adjustable through a full $\frac{1}{32}$ " range; therefore it is not necessary to buy pads for 64th or odd decimal sizes—this reduces your inventory costs.



FOR SALES AND SERVICE WRITE OR CALL:

**BALTIMORE**

Hardinge Brothers, Inc.
P.O. Box 202
Baltimore, Maryland 21139
Phone: 301-825-1666

BOSTON:

Hardinge Brothers, Inc.
211 Oak Street
Natick, Massachusetts 01762
Phone: 617-969-7980

CHICAGO

Hardinge Brothers, Inc.
5244 W. Diversey Avenue
Chicago, Illinois 60639
Phone: 312-685-7242

CLEVELAND

Mr. Paul Brown
3320 Ormond Road
Cleveland, Ohio 44118
Phone: 216-321-8594

DALLAS

P. D. Browne Company
2512 W. Mockingbird Lane
Dallas, Texas 75235
Phone: 214-357-6239

DANBURY, N. C.

Hardinge Brothers, Inc.
P.O. Box 35
Danbury, North Carolina 27016
Phone: 919-593-7131

DAYTON

Hardinge Brothers, Inc.
169 East Helena Street
Dayton, Ohio 45404
Phone: 513-222-6572

DENVER

Duboc-Lane & Monckton, Inc.
637 Osage Street
Denver, Colorado 80204
Phone: 303-623-1261

DETROIT

Hardinge Brothers, Inc.
10024 W. McNichols Road
Detroit, Michigan 48221
Phone: 313-863-5340

HARTFORD

Hardinge Brothers, Inc.
278 Park Road
West Hartford, Connecticut 06119
Phone: 203-523-4291

HORSEHEADS, N. Y.

Hardinge Collet Division
Horseheads, New York 14845
Phone: 607-734-2281

HOUSTON

Wessendorff, Nelms & Company
P.O. Box 15255
5535 Harvey Wilson Drive
Houston, Texas 77013
Phone: 713-928-5151

INDIANAPOLIS

Hardinge Brothers, Inc.
3936 East 10th Street
Indianapolis, Indiana 46201
Phone: 317-359-3539
(answering service)

LOS ANGELES

Hardinge Brothers, Inc.
4480 E. Olympic Boulevard
Los Angeles, California 90023
Phone: 213-261-0103

MINNEAPOLIS

Milton Granquist Company
2431 E. Franklin Avenue
Minneapolis, Minnesota 56264
Phone: 612-339-8678

PHILADELPHIA

Hardinge Brothers, Inc.
555 Industrial Park Drive
Yeadon, Pennsylvania 19050
Phone: 215-748-5008

PITTSBURGH

Mr. Richard M. Homfelt
1039 Carol Drive
Bridgeville, Pennsylvania 15017
Phone: 412-343-0606
(answering service)

PORTLAND

Beaver State Machinery Co.
2801 S. E. Ninth Avenue
Portland, Oregon 97202
Phone: 503-232-4404

ROCHESTER, N. Y.

Rochester, New York
Phone: 716-271-2138
(answering service)

OR

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