

# THE NEW MODEL "856" INDEX VERTICAL MILLING MACHINE

## EXTRA HEAVY DUTY—RIGID TYPE

NEW powerful two (2) horsepower head, extra heavy base and column provide the vibration free rigidity and power to assure you dependable accuracy of a degree you would never expect from a machine near this price • Make heavy production cuts without chatter • Ideal for use with optics, rods and indicators or verniers • An accurate machine for precision boring work.

**BACK GEAR UNIT** — for full two horsepower and torque at all spindle speeds • 8 spindle speeds — 75 thru 2850 rpm • Single lever shifts for low speed range, high speed range and neutral "free spindle" for easy hand rotation in indicating and tool changing.

**NEW QUILL** — 3 $\frac{3}{8}$ " quill provides rigid spindle mounting and long accurate life • Rigid mounting of precision bearings • Feed up or down controlled by hand lever, hand wheel or power (reversible) — accurate trip-out and dead stop for better depth control • Power quill feed gear train may be disengaged when being used for milling operations • Standard spindle furnished with #9 Brown & Sharpe taper —  $\frac{1}{2}$ " — 13 thread draw bar • Optional — #30 milling machine spindle taper which will accept either standard #30 or quick change tooling.

**NEW CLUTCH** — Permanently adjusted at factory • Requires no further attention • Single lever engages and disengages.

**TRADITIONAL ACCURACY** — Hand-scraped ways, precision ground lead screws and readily adjustable tapered gibs give you the accuracy you expect from INDEX.

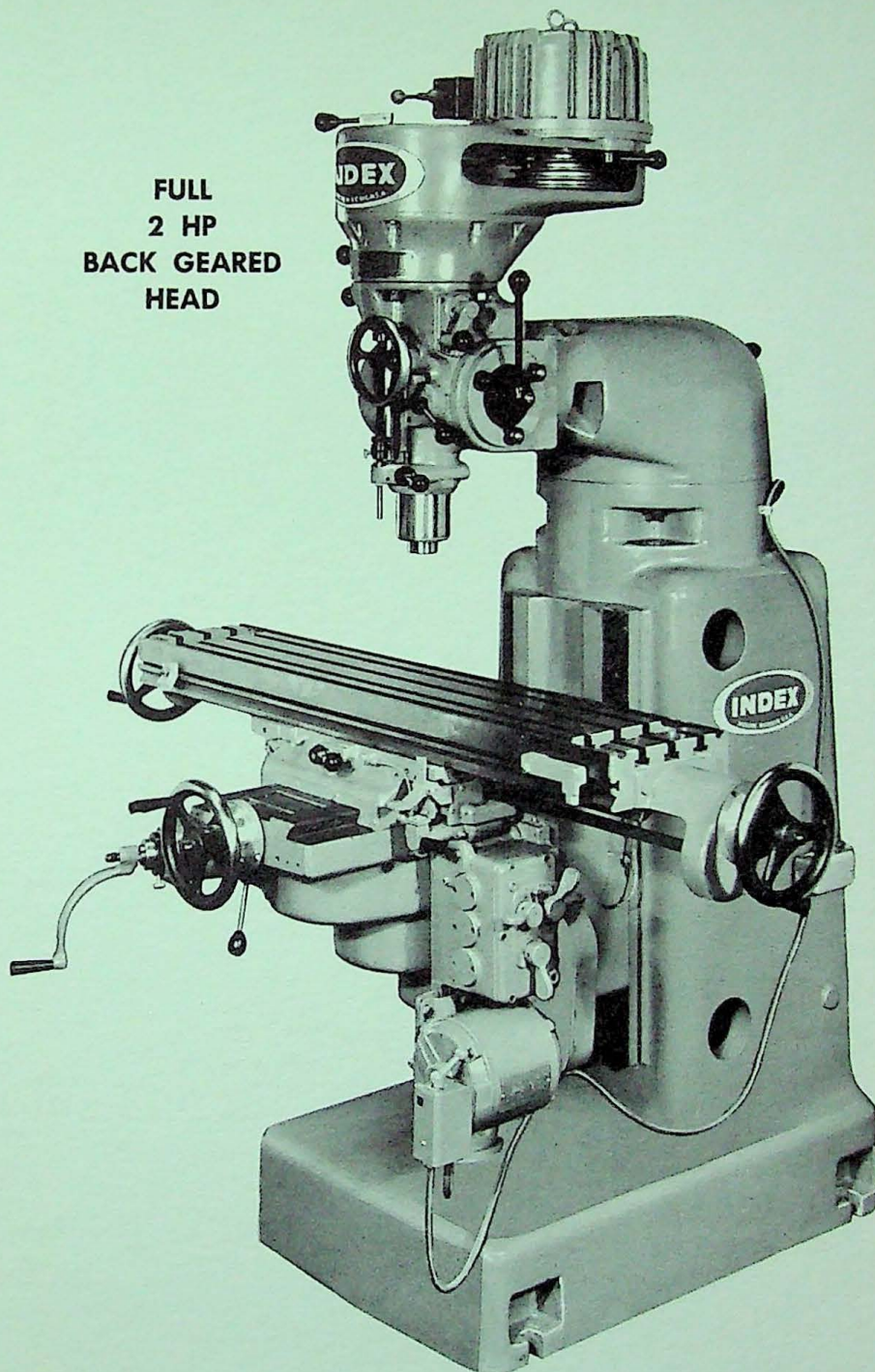
**COMPACT DESIGN** — Greater operator convenience (See head description, reverse side) • Better guarding • Easier operation.

**COOLANT GROOVES** — Front and back of table with wells in ends, drilled and tapped for return lines.

**OPTIONAL EXTRAS** — A wide range for extra versatility.

(See back and Accessory Catalog #C-666-2M.)

**FULL  
2 HP  
BACK GEARED  
HEAD**

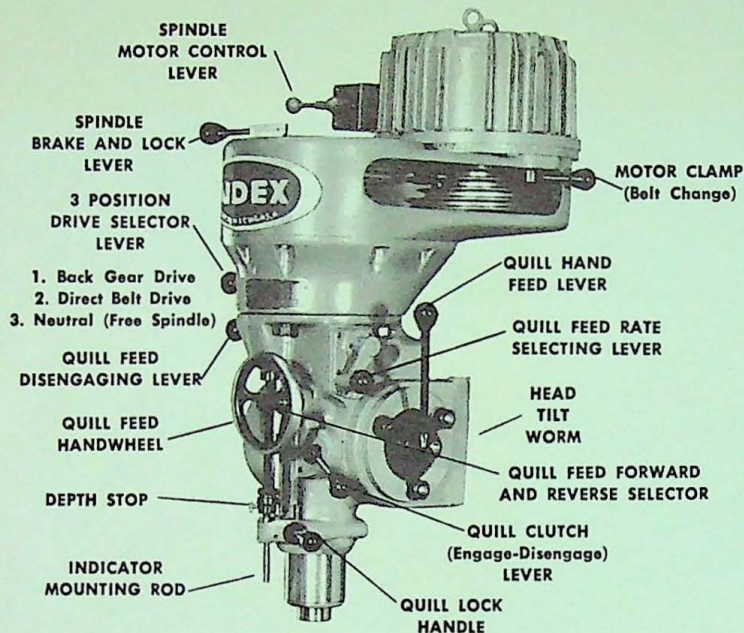


# INDEX

**MACHINE & TOOL COMPANY**  
543 N. MECHANIC ST. • JACKSON, MICHIGAN 49204  
Phone (517) 787-5444



# NEW COMPACT HEAD



Perform all operations, make tool changes, even change belts without moving from your normal operating position.

In addition, the new head will tilt through a full 360°, side to side — better guarding for operator safety • New spindle nose and extension for greater visibility and easy hand rotation.

## FURNISHED AS STANDARD

46" (32" Travel) long table • Long Knee (12" Cross Travel) • 2 HP back geared head • #9 B & S Tapered Spindle • Massive column and base • Longitudinal table power feed • Hand scraped ways • Adjustable tapered gibs • Precision ground lead screws • One shot lubrication.

## OPTIONAL EXTRAS

(For complete details on accessories, ask for Catalog #C-666-2M.)

Here are just a few of the optional extras that will give you maximum efficiency and versatility with your "856" — #30 milling machine spindle taper which will accept either standard #30 or quick change tooling • Cross Power Feed • Rapid Traverse • Complete Coolant System • Right Angle Milling Head • Rods and Indicators • Verniers • Trav-A-Dial • Direct Reading Optical Systems • Tracing Systems (1, 2 or 3 Dimensional) • Numerical Control • Chrome Plated Ways • Rotary Tables • Tilting Tables • Swivel Base Vises • Column Mounted Light • Many Others.

Save time and money by having accessories factory installed and shipped on the machine.

## INDEX MODEL "856"

## SPECIFICATIONS

### TABLE

Overall Size .....	9" x 46"
T-slots: Number and Size .....	Three - 5/8"
Distance between T-slots .....	2 1/4"
Handwheel Dial Graduations .....	.001"

### TRAVELS

Longitudinal .....	32"
Cross .....	12"
Vertical-Knee .....	18"
Quill .....	5 1/4"

### THROAT DIMENSIONS

Center of Spindle to Column Face .....	10 3/4"
Center of Table to Column Face .....	Min. 5 1/2", Max. 17"
Spindle Nose to Top of Table .....	Min. 0", Max. 18"

### HEAD, SPINDLE AND QUILL

Head Tilt (side to side) .....	180° - 0 - 180°
Spindle Taper (std. — others optional) .....	#9 B&S with 1/2" Draw Bar
Spindle Speeds — 8 .....	Back Gear Drive 75, 125, 210, 355 Direct Belt Drive 600, 1000, 1675, 2850 RPM
Reverse .....	Yes
Quill Outside Diameter .....	3 3/8"
Quill Feeds — 3 .....	.0015", .003", .006" Per Spindle Revolution

### MOTORS

Spindle (single speed) .....	2 H.P.
Table Feed .....	1/4 H.P.
Rapid Traverse (optional) .....	1/4 H.P.

### TABLE POWER FEEDS

Longitudinal (Cross Optional) .....	8 Feeds (std.): 3/4", 1 1/8", 1 3/4", 2 3/8", 3 5/8", 4 3/4", 7 1/4" & 9 1/2" per minute (Feeds 1/2 or double above, to order)
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### POWER RAPID TRAVERSE

(Optional) Longitudinal .....	80" per minute
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### BASE DIMENSIONS

Front to Back .....	37"
Left to Right .....	24"

### FLOOR SPACE

Front to Back .....	60"
Right to Left .....	98"

### HEIGHT OVERALL

.....	84"
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SHIPPING WEIGHT (approx.) .....	2700#
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DESIGN AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

SOLD BY:

# INDEX

MACHINE & TOOL COMPANY

543 N. Mechanic St. • Jackson, Michigan 49204