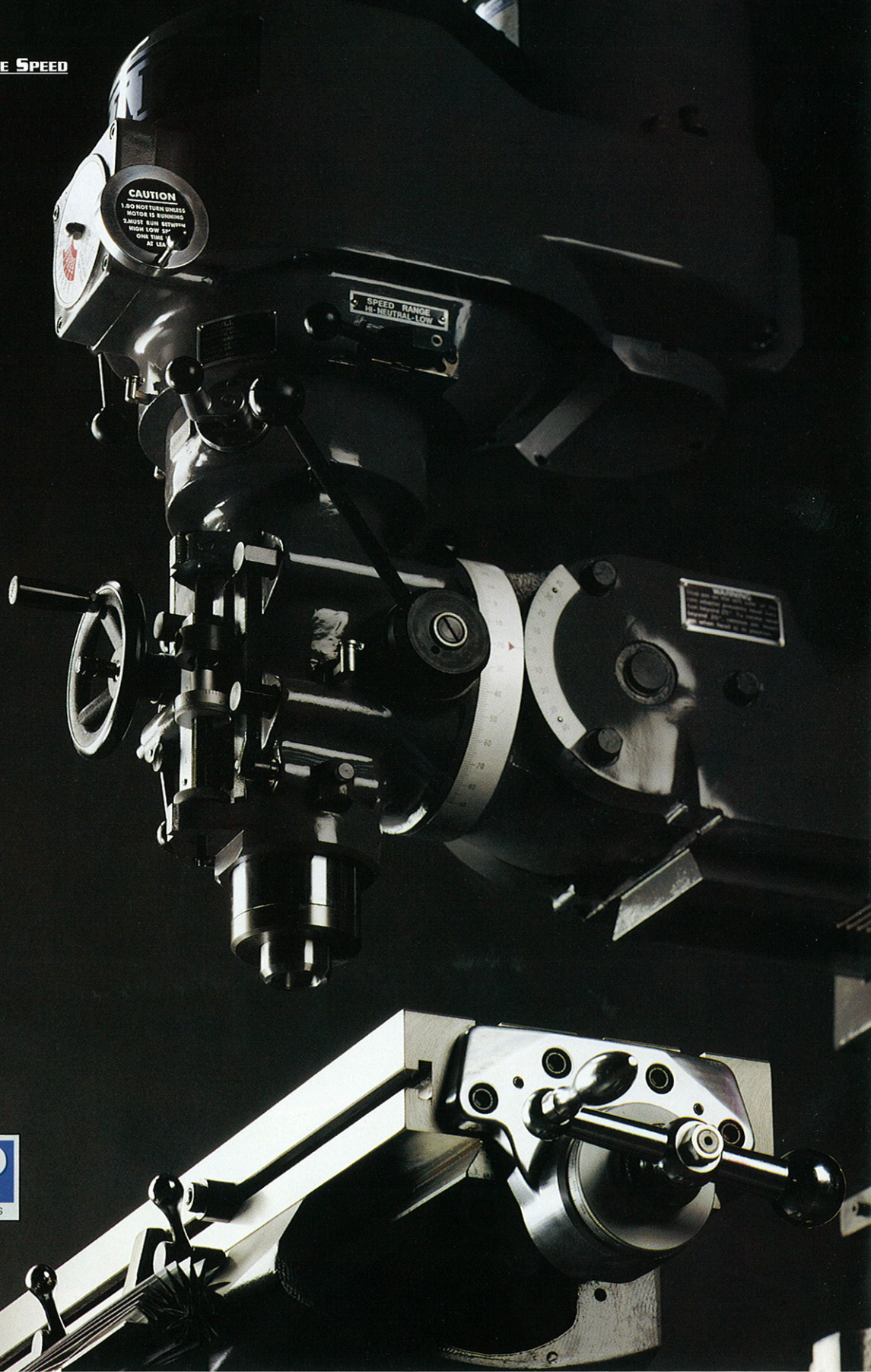


VERTICAL MILL

MODEL LMV

AVAILABLE WITH DIGITAL VARIABLE SPEED



SHARP
PRECISION MACHINE TOOLS

V E R T I C A L T U R E T

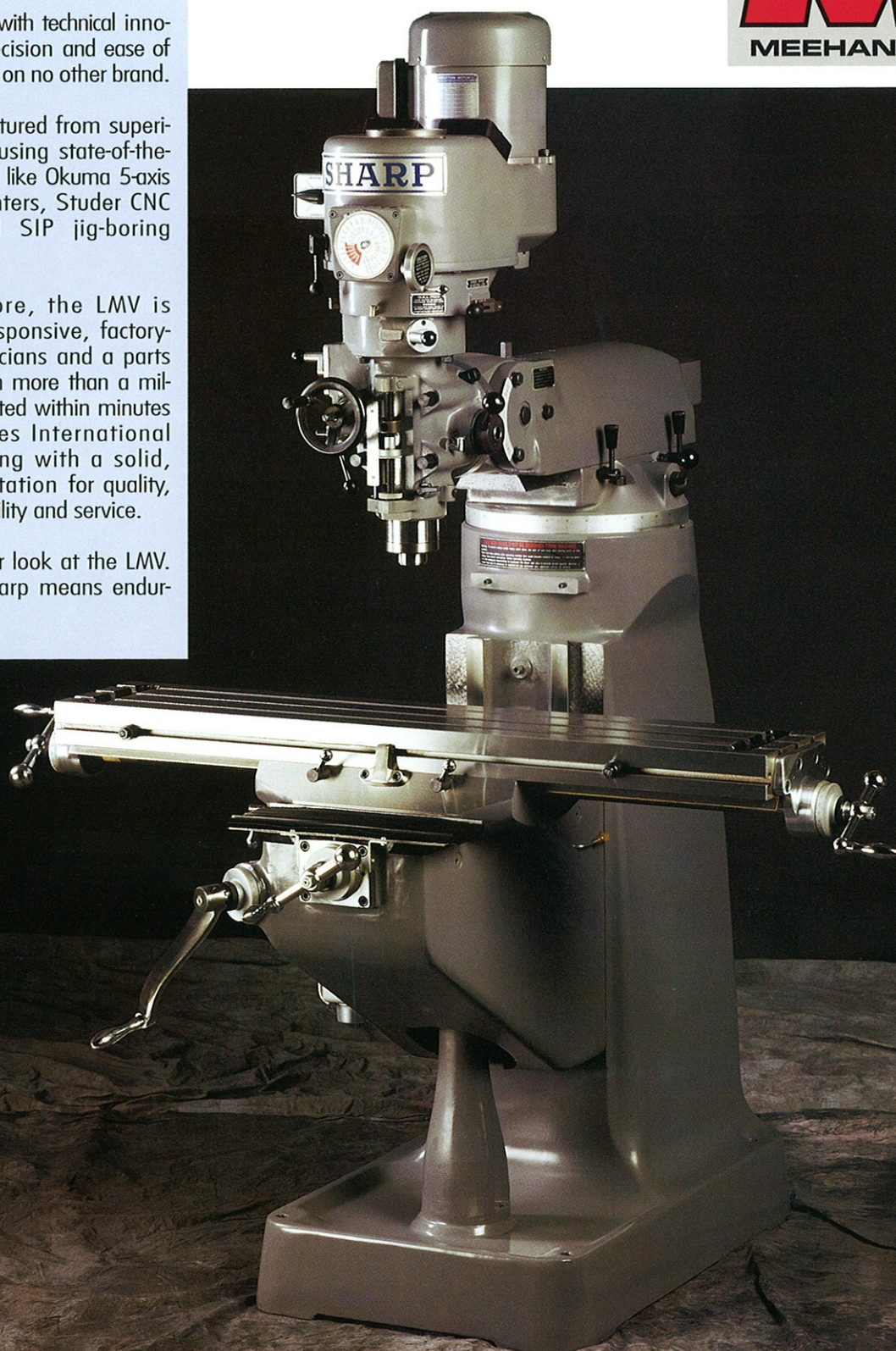
The Sharp LMV Vertical Turret Mill is built to be the best vertical mill in the industry: Accurate. Precise. Durable. Trouble-free.

It's designed with technical innovations for precision and ease of operation found on no other brand.

It's manufactured from superior materials, using state-of-the-art equipment like Okuma 5-axis machining centers, Studer CNC grinders and SIP jig-boring machines.

What's more, the LMV is backed by responsive, factory-trained technicians and a parts inventory worth more than a million-dollars located within minutes of Los Angeles International Airport—along with a solid, 25-year reputation for quality, precision, reliability and service.

Take a closer look at the LMV. You'll find Sharp means enduring precision.



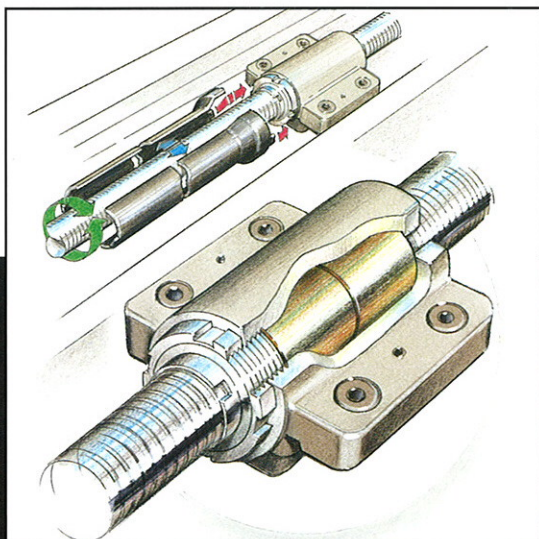
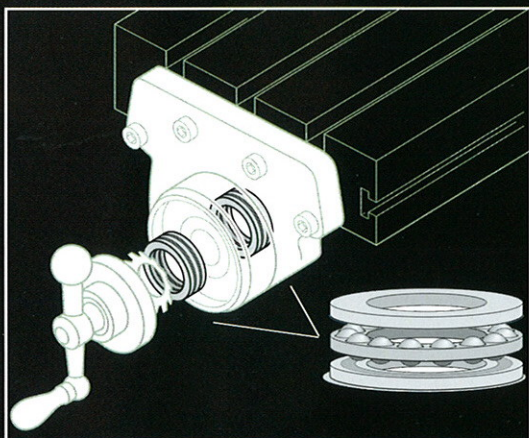
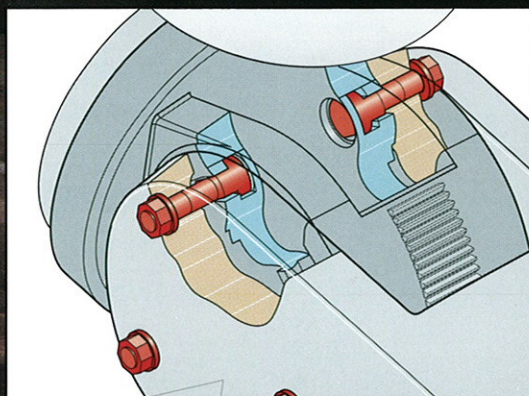


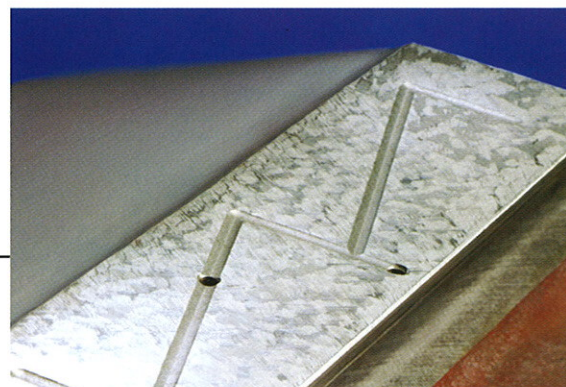
Table and saddle backlash is controlled by a unique double-nut design that keeps the feed screw in contact with a pair of bronze nuts at all times. Using a custom tool supplied with the mill, the feed nuts are adjusted to control backlash and held tight with a retaining nut and locking ring.



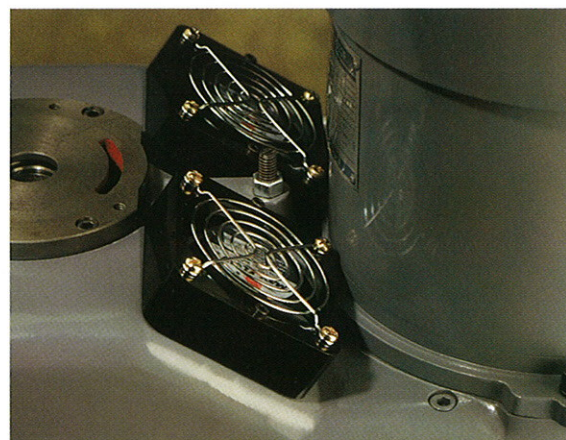
The LMV's table and saddle are mounted with thrust bearings that pre-load the feed screw, eliminating end-play for precisely controlled lateral movement.



Sharp mills have a knuckle which uses 6 bolts, 3 per side, fitted into circular T-slots with nuts securing them from the outside. This method locks the head into place more securely resulting in better accuracy and performance.



The underside of the saddle is hand-scraped for better oil retention. Our craftsmen repeatedly match the surfaces of each unit and check for precise fit, to guarantee more complete oil retention. This extra step avoids having chips and dirt embed in the knee and damage the sliding surface.



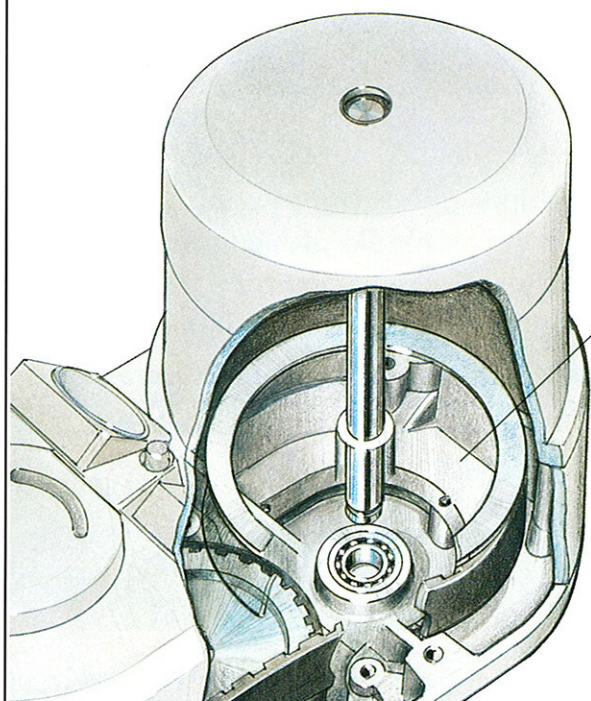
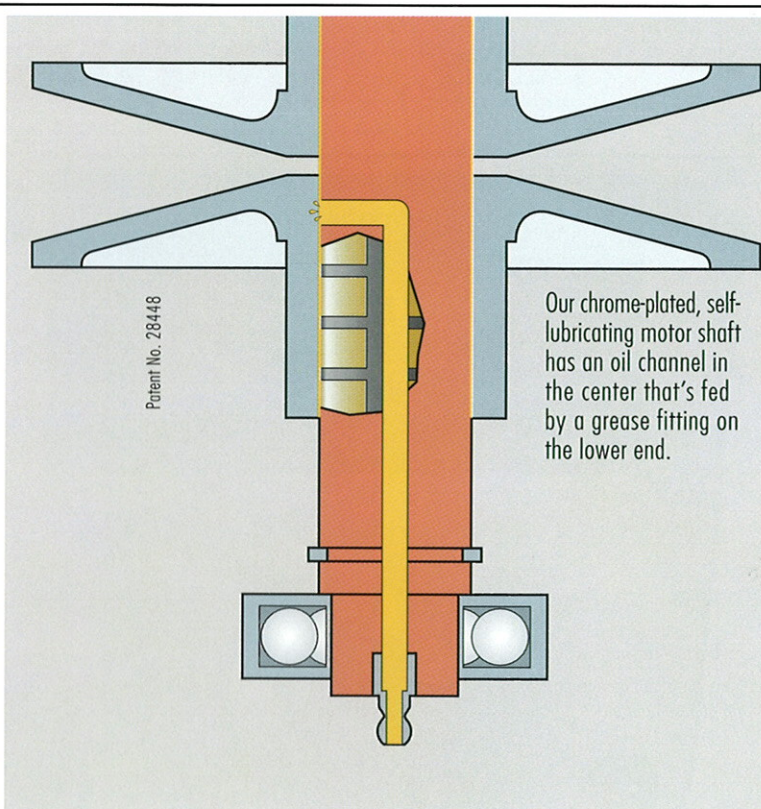
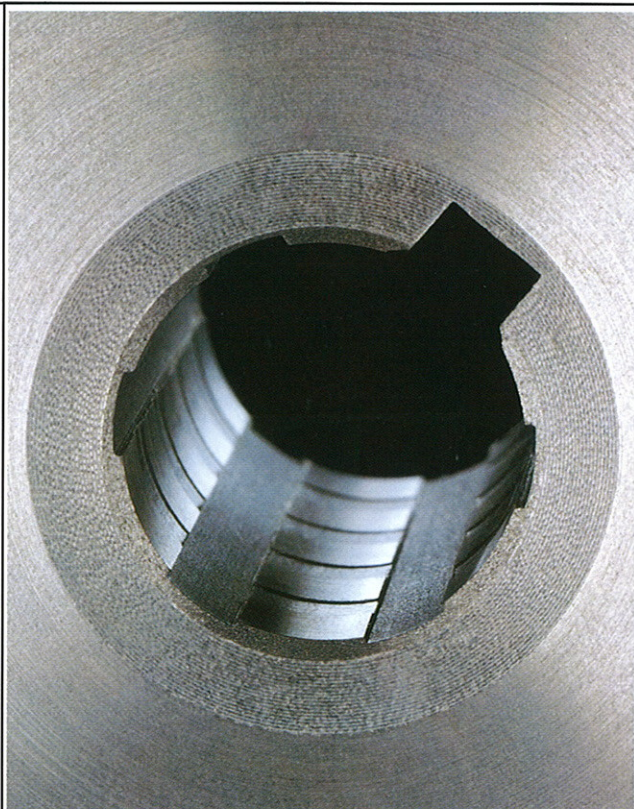
A pair of high-output fans keep the LMV's powerful 3 h.p. head cool—one of a series of heat-dispersion features that allow the LMV to work demanding jobs for extended periods without damaging the motor, belts or bearings.



A matched pair of super-precision ABEC-7 angular contact bearings support the spindle. The quill is CNC-ground to a mirror finish, then chromed to fit the housing. Together, they insure spindle runout of no more than 0.0002" T.I.R.—a tolerance unsurpassed in the industry.

P A T E N T E D F E A T U R E S

Details inside make it superior: The motor shaft and VariDrive pulleys are dynamically balanced, then hard-chromed for a flawless fit. Our unique pulley design uses precision-ground ribs on the inside diameter for super-smooth speed changes.



The LMV is the only mill in its class that uses a roller bearing for the lower support of the motor shaft. It ensures proper loading, support and alignment for quiet, accurate operation at any speed. It also prevents the shaft from being distorted by the tension of the belt over years of use.

SHARP
PRECISION MACHINE TOOLS

DIGITAL VARIABLE SPEED (DVS)

Now Available on the LMV!

GO DIGITAL!



Why Choose Sharp DVS?

- Dynamic brake
- Low voltage control
- Large **Digital** RPM display
- Extremely easy to operate
- Fully enclosed display unit
- Yaskawa Inverter Drive System
- High reliability with fewer moving parts
- Machine runs on single phase and 3 phase
- Safety device prevents machine from self starting after power failure or emergency stop.
- Unsurpassed accuracy, reliability, and value

Experience Superior Milling

S P E C I F I C A T I O N S

Model LMV

Table

working surface	9x42"
T-slot number, size	3, 5/8"

Capacity

table travel; x-axis	30"
saddle travel; y-axis	12"
ram travel	12"
quill travel; z-axis	5"
knee travel	16"
spindle to column (min-max)	63/4-18 1/2"
spindle to nose to table	2 1/8-18"

Spindle

motor	3 HP
wiring voltage	220/440V, 3 phase, 60 Hz
taper	R-8
speed [vari speed]	60-4,500 RPM
quill feed (IPR)	0.0015, 0.003, 0.006"
head swivel	360°
head tilt; right-to-left (each way)	45°
head tilt; up-and-down (each way)	45°

Dimensions and Weight

floor area (w x d)	7 x 6.5'
net weight (approximately)	2,400 lbs

Model LMV-50: 50" table (same as LMV except:)

working surface	9x50"
table travel; x-axis	37"

Standard Equipment

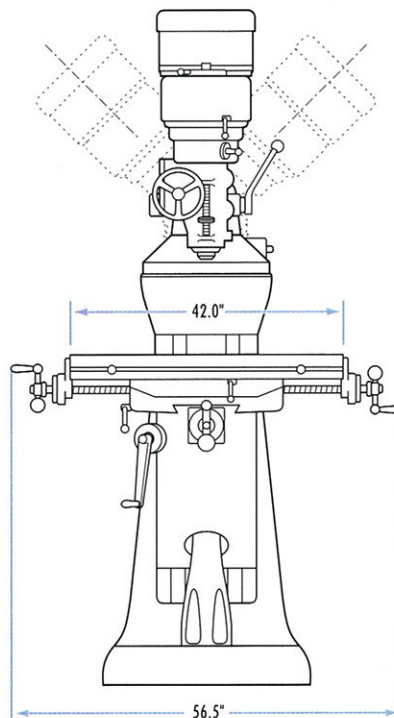
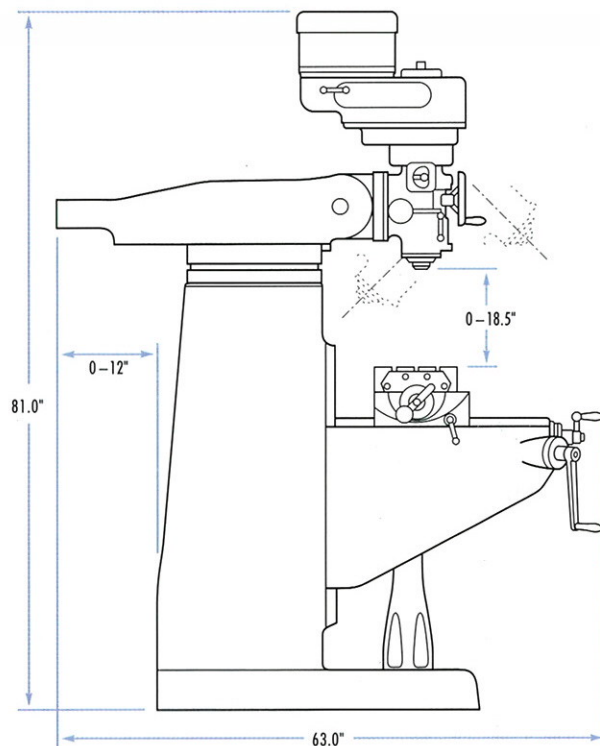
Hard-chromed ways. Cutler-Hammer on/off switch.
Front and rear rubber way covers. Tool kit.

Optional Accessories

Digital Variable Speed head. #30 Spindle. Servo power feeds for table, saddle and knee. R-8 collet set. Milling vise. Clamping kit. Right-angle milling attachment. Riser block. D.R.O. systems. Power drawbar.

Optional Electrics

U.L. • L.A. City. • J.I.C. • N.F.P.A. 79



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