

Cut a new, full-depth, 6 inch (152.4 mm) keyway in less than 4 minutes



The CLIMAX KM3000 Portable Key Mill is a simple, rugged, dependable machine tool designed to cut keyways in shafts without extensive dismantling. The automatically centering V-base is quick and easy to set up. Clamps onto any shaft from 1.5 - 4.5 inches (38.1 - 114.3 mm) in diameter with the standard bar clamp. It cuts stub-end and mid-shaft keyways. Or clamp the machine to a flat surface, and you can cut motor mount slots. With the optional shim kit, you can cut keyways or slots in shafts as small as 0.75 inches (19.1 mm) in diameter.

Compact & Powerful

- Compact, rugged, portable milling machine for on-site keyway and other milling jobs.

- Self-centering and self-aligning V-base.
- Needs only 1.5 inches (38.1 mm) of shaft for clamping.
- Clamps onto shafts up to 10.5 inches (266.7 mm) in diameter with optional chain clamp.
- Slotted V-base allows you to cut right to the end of the shaft.

Efficient Operations with High-Quality Components

- Vertical and horizontal travel via hand crank.
- Dovetail ways for accurate cutting action.
- Standard Weldon-type spindle accepts 5/8 inch end mills or 16 mm shank end mills on metric machines.

- Precision Acme thread leadscrew with roller thrust bearings.
- Zeroing-type vertical adjustment dial calibrated to control cutter depth in increments of 0.001 inch (0.1 mm).
- Sealed aluminum alloy gearbox allows operation at any angle.
- Precision ground quill housing ensures smooth operation.

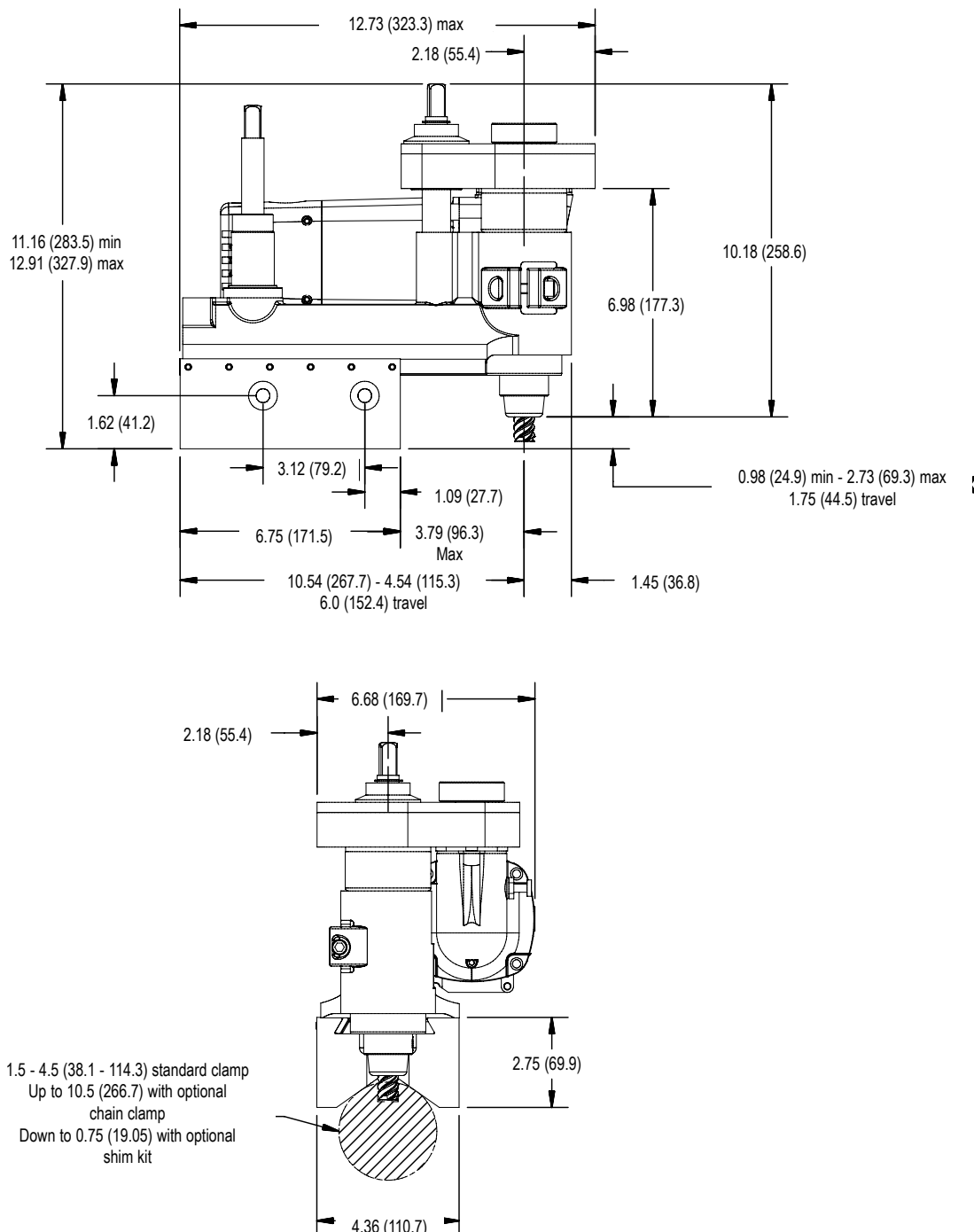
SPECIFICATIONS

	Inch	Metric
Machine Performance Ranges		
Stroke (slide travel) max.	6 in.	152.4 mm
Vertical travel max.	1.75 in.	44.5 mm
No load variable spindle speed minimum maximum		365 rpm 675 rpm
Spindle hole diameter	0.625 in.	16 mm
Maximum end mill diameter	1.25 in.	31.75 mm
Maximum shaft diameter: standard bar clamp with optional chain clamp	4.5 in. 10.5 in.	114.3 mm 266.7 mm
Minimum shaft diameter: standard bar clamp with optional shim kit	1.5 in. 0.75 in.	38.1 mm 19.1 mm
Minimum clamping space required on stub shaft	1.5 in.	38.1 mm
Power Options		
Electric	120V or 230V, 50-60Hz	
Pneumatic (upon request)	1.2 HP	0.9 kW
Hydraulic (upon request)	4.7 HP	3.5 kW
Measurements		
Overall length	12.5 in.	317.5 mm
Overall width	6.6 in.	167.6 mm
Overall height	11.63 in.	295.4 mm
Base size	4.38 x 6.75 in.	113.3 x 175.1 mm
Operating weight (with speed control)	70 lbs	31.8 kg
Shipping weight (with speed control)	82 lbs	37.2 kg
Shipping dimensions	13 x 14 x 20 in.	330 x 360 x 508 mm
Machining Ability Example		
Material	C1018 steel	
Metal removal rate	1 in. ³ /minute	16.4 cm ³ /min
Keyway dimensions	1 x 0.5 x 6 in.	25.4 x 12.7 x 152.4 mm
Cutting Time	3 minutes and 10 seconds *	

*Actual cutting time for a keyway 1 x 0.5 x 6 inches (25.4 x 12.7 x 152.4 mm) was 3 minutes 10 seconds. Achieved this time with C1018 steel and a sharp-end mill.

OPERATIONAL DIMENSIONS

Dimensions in inch (mm)



All dimensions should be considered reference. Contact your CLIMAX Representative for precision dimensions. Specifications are subject to change without notice. There are no systems or components on this machine that are capable of producing hazardous EMC, UV or other radiation hazards. The machine does not use lasers nor does it create hazardous materials such as gasses or dust.

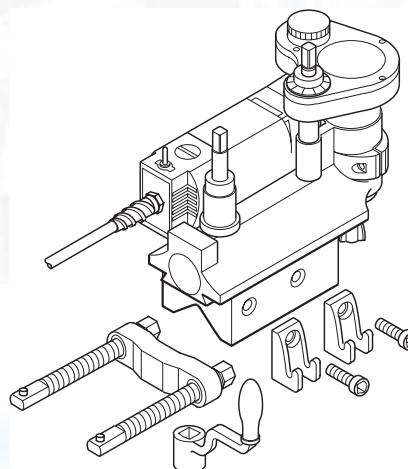
TOOL CONFIGURATIONS

To order your KM3000 Key Mill, simply select your Key Mill and contact your CLIMAX sales representative.

The KM3000 Key Mills come standard with a Hp (0.75 kW) electric motor, speed controller, tool kit, bar clamp, operator manual, and wood crate.

Order collets and end mills separately.

Part No.	Inch/Metric	Motor	Speed Control
37000	Inch	120 V	Non-CE
16004	Metric	230 V	CE Certified
102258	Metric	120 V	CE Certified



ACCESSORIES

Chain clamp assembly - Chain, clamping blocks and bolts for attaching key mill to shafts up to 10.5 inch (266.7 mm) diameters. Net weight 7 lb (3.2 kg)	27364	KM3000 speed control assembly 230V, CE-Compliant - Provides on/off and variable speed of the KM3000 motor. Fits current generation of KM motors only, not older models. Has european Schuko style plug.	36685
Cross milling adapter - Allows key mill to be clamped 90 degrees to shaft axis. Net weight 7.18 lb (3.5 kg)	10381	KM3000 speed control assembly and retrofit kit - Provides on/off and variable speed of the KM3000 motor. Includes 36549 speed control assembly and a new end cap assembly (34142) for the motor so that older machines can use the current design controller. Has standard NEMA 5-15 straight blade plug with ground.	36950
Shim kit - Shims fit inside V- base to enable key mill to be mounted to shafts with diameters as small as 0.7 inch (19.1 mm). Net weight 3.4 lb (1.6 kg).	11669		End Mill Sets - SAE and metric 2-flute end mills are available. Short flutes for maximum rigidity. See separate end mill price list for availability.
KM3000 inline switch 120V - Provides on/off control of the KM3000 motor. No variable speed. Used when variable speed is not required. Fits current generation of KM motors only, not older models. Has standard NEMA 5-15 straight blade plug with ground. Overall length is 96 inches (244cm)	37388	End mill set, inch - Seven end mills from 1/4 - 1 inch in 1/8 inch increments, plus collet.	10385
KM3000 inline switch 230V, CE-Compliant - Provides on/off control of the KM3000 motor. No variable speed. Used when variable speed is not required. Fits current generation of KM motors only, not older models. Has european Schuko style plug. Overall length is 244 cm (96 inches)..	37389	End mill set, inch - Eight end mills from 3/16 - 1 inch in 1/16 inch increments, and seven end mills from 1/4 - 1 inch in 1/8 inch increment, plus 3/8 inch I.D. collet for end mills 7/16 inch and smaller.	10386
KM3000 speed control assembly 120V - Provides on/off and variable speed of the KM3000 motor. Fits current generation of KM motors only, not older models. Has standard NEMA 5-15 straight blade plug with ground.	36549	End mill set, metric - Five end mills: 8 mm, 10 mm, 12 mm, 16 mm, and 18 mm, plus two collets, one with 16mm OD with 10mm ID, the other with 16mm OD and 12mm ID.	10387
		End mill set, metric - Eight end mills: 5 mm, 6 mm, 8 mm, 10 mm, 12 mm, 14 mm, 16 mm, 18 mm, plus three collets.	22387

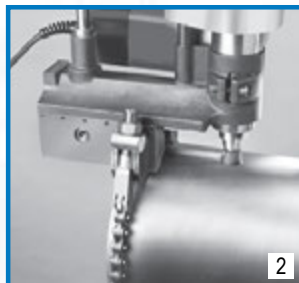
NOTE: Drawings are for reference only, are not to scale, and may not represent actual product.

APPLICATION PHOTOS

As versatile as your imagination

Here are some examples:

1. Attach angles to the sides of the base, and clamp the KM3000 down to cut motor mount slots or bore holes.
2. Clamp on shafts up to 10.5 inches (266 mm) dia. with optional chain clamp.
3. Mounted in a vice, the KM3000 can cut keyways in small shafts and mill other small parts such as gear pullers.
4. Special fixtures allow the KM3000 to cut ID keyways and slots in large tubing, etc.
5. Use the KM3000 in tight places, like the shaft on a paving machine.
6. Cut flats on drill pipe section with the optional cross milling adapter and stamp ID marks if you wish.
7. Mounted vertically on a stationary milling machine, the KM3000 can cut a mounting pad for a readout instrument.

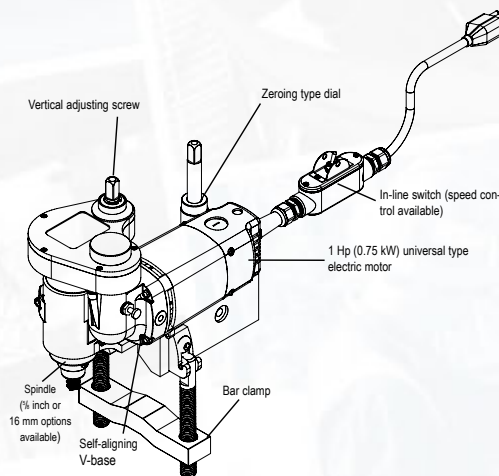
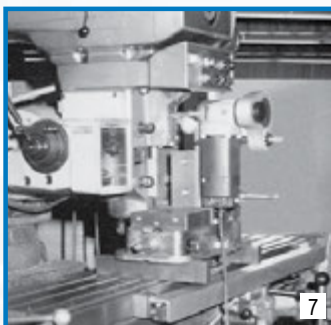
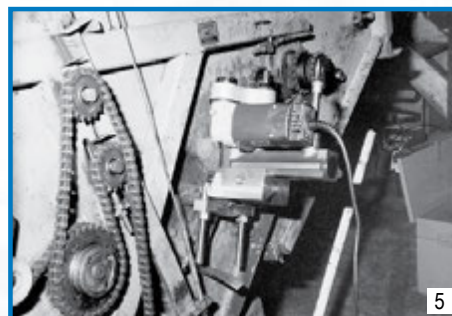
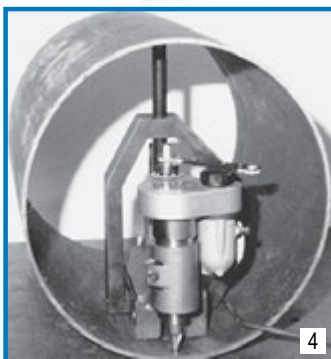


The KM3000 is widely used by these industries:

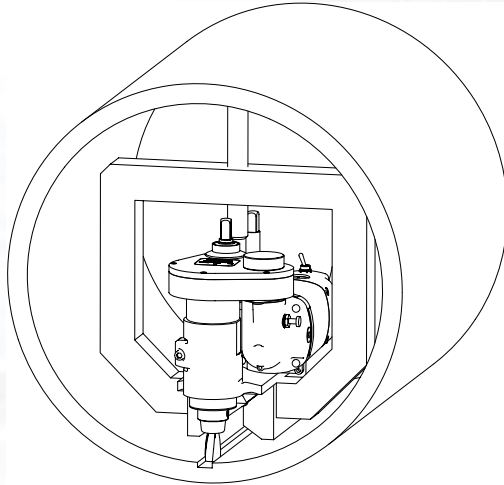
- Construction
- Mining
- Power Generation
- Ship building
- Pulp and paper
- Steel and aluminum

Typical applications:

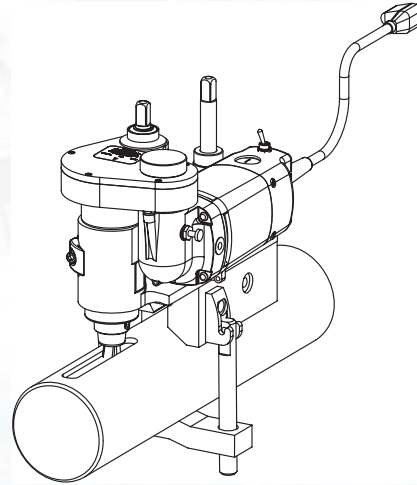
- Key slots on crank shafts
- Keyways on tapered shafts
- Keyways on pump shafts
- Motor and pump repair
- Mill radius slots in turbine shafts
- Cutting new keyways on paper rolls
- Chipper and conveyor repair
- Keyways on motors



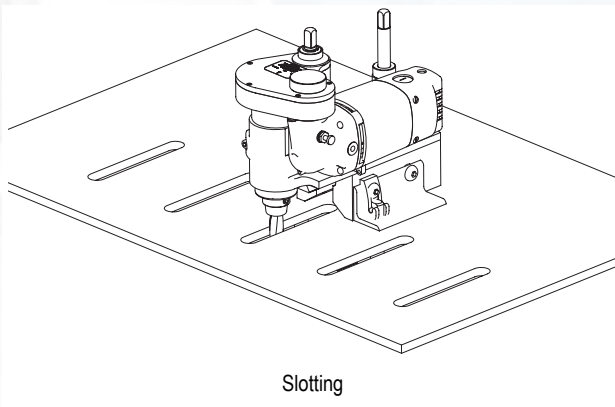
APPLICATIONS



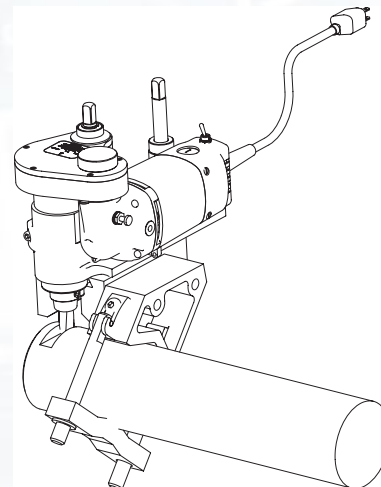
ID Keyway Cutting



OD Keyway Cutting



Slotting



Cross Milling



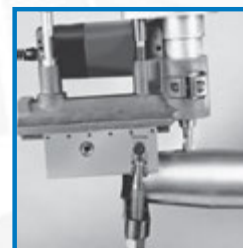
Mount on end

Only 1.5 inches (38.1 mm) of shaft required for mounting the KM3000.



Mount in the middle

The machine can be leveled for cutting long keyways.



Tapered shafts

Mounting on tapered shafts require shimming.