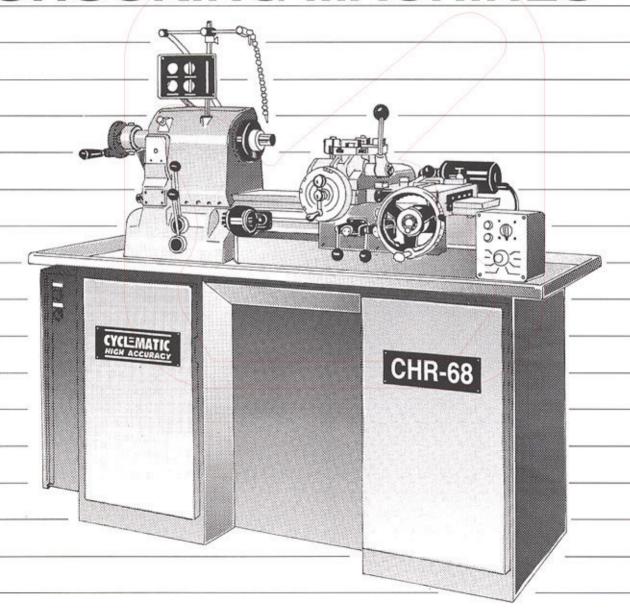
# CYCLEMATIC

**High Accuracy Machine Tools** 

HIGH SPEED HIGH ACCURACY

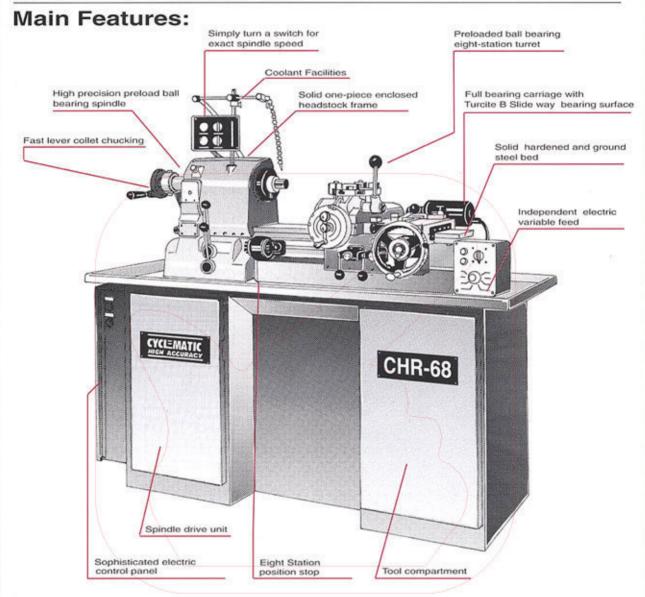
**CHUCKING MACHINES** 



**CYCLEMATIC MODEL CHR-68** 

# HIGH SPEED HIGH ACCURACY CHUCKING MACHINES

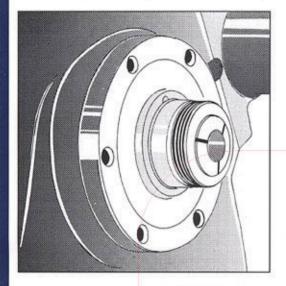
#### **MODEL CHR-68**



- The spindle is mounted in high precision preloaded ball bearings eliminating radial and end play. T.I.R. at the spindle nose is guaranteed to 80 millionths of an inch.
- Fully enclosed preloaded ball bearing headstock with splash shield for spindle.
- Infinitely variable spindle speeds from 135-2955 r.p.m.
- Fast lever collet chucking with a single movement.
- Independent infinitely variable feeds produce accurate cuts with efficient chip removal, and smooth surface finish.
- Full bearing carriage with Turcite B Slideway bearing material between carriage and bed.
- Preloaded ball bearing eight-station turret automatically indexes as the operator moves the turret locking-lever.
- With practical design of carriage stop drum and cross feed indicator for increased production.
- The specially designed bed ways are made of hardened and ground steel, that resist wear. The angular guide ways allow chips to fall in the chip tray.

#### HEADSTOCK **FEATURES**

High Accuracy Preloaded Ball Bearing Spindle, 1-1/16"5C Collet Capacity, Collet Seats Directly in Spindle.Solid One-Piece Totally Enclosed Headstock Frame. Spindle speed To 2955 r.p.m.



#### Cyclematic High Accuracy Spindle

The preloaded ball bearing spindle is mounted in the solid, one-piece, totally enclosed headstock housing for maximum rigidity and sustained accuracy.

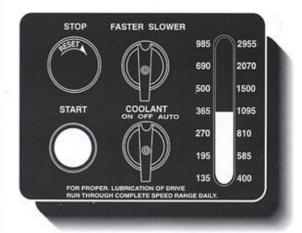
The bearings require no adjustment and are permanently lubricated to operate at all speeds without attention. Preloading eliminates all end play, radial play and assures the turning of true pieces.

The collet seats directly in the hardened and precision ground spindle, thus eliminating troublesome sleeves and adapters that introduce costly inaccuracies.

The rigidity provided for sustained accuracy also provides the proper support for work when cutting with modern tooling.

#### STANDARD TOOLS

- ST-01 Hexagon wrench keys(1 set)
- ST-02 Open end wrench(10-12mm)
- ST-03 Open end wrench(14-17mm)
- ST-04 Open end wrench(17-19mm)
- ST-05 Cross-head drive(4"handle) ST-06 Screw driver(4"handle)
- ST-10 Tool box
- T-CT-02 Test bar



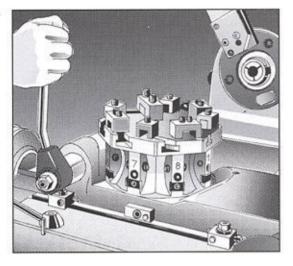
#### Spindle Speeds

Cyclematic CHR-68 Chucking Machines are equipped with a specially designed variable spindle speed control. Spindle speeds may be increased or decreased with the touch of a switch, even when the tool is cutting.



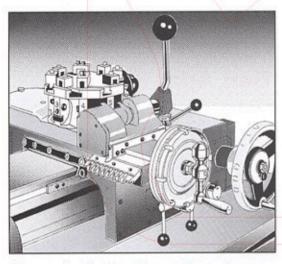
#### **Fast Lever** Collet Closer

The quick action lever type collet closer is balanced and rides on high precision ball bearings. Simple movement of the lever from right to left allows for fast collet chucking of precision parts.



#### **Eight Station Turret**

By moving the locking lever approximately 90° the precision ground, eight station turret, automatically indexes one space. Return lever to its original position and the turret is rigidity locked ready for the next operation. This automatic indexing feature saves time and can increase production.

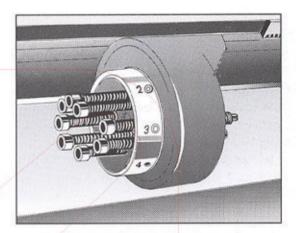


#### Precision Carriage Design

The CHR-68 High Accuracy Chucking Machine has a unique precision carriage design. The carriage includes three high precision bearing surfaces for the cross slide assembly as well as the top of the bed and the turret. This full ball bearing design provides rigidity and maximum accuracy. All carriage slide and bed ways are pressure lubricated to insure long machine life. Precision gears and clutches are completely enclosed in a special oil bath system. Feed and clutch handles are conveniently located for easy operator access.

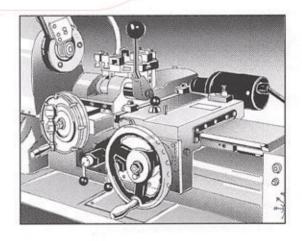
#### Eight-Station Stop Drum

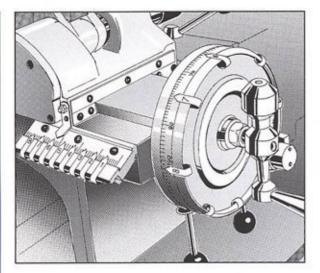
The longitudinal movement of the carriage is controlled by the stop drum. There are eight adjustable stops for positioning the eight-station turret. Additional clearance in the bed has been provided so the operator can rapidly index the stop drum to desired position.



#### Independent Electric Variable Feeds

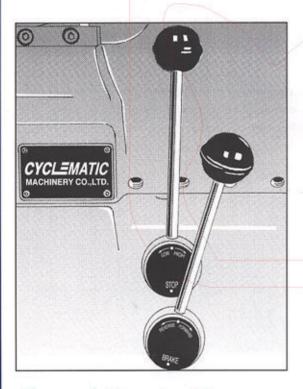
The independent electric variable feed for carriage and cross slide provides complete freedom of operation. The rate of feed can be changed instantly at any time, even when the tool is cutting without wasting valuable production time stopping the machine to shift gears as is the case with slow conventional lathes.





#### **Easy Reading Dials**

Easy reading dials for cross feed turret are standard lathe equipment. In the operation of a lathe no other item receives such close attention since they control the size of the part produced. This lathe with its fast, easy reading dials will produce more accurate work at lower cost than conventional hard-to-read dials

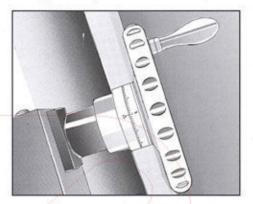


#### **Speed Control Levers**

Spindle rotation and speed range can quickly be selected by moving the control levers shown in the illustration to the proper position. Placing the forward reverse lever at the center position automatically actuates the solenoid operated spindle brake.

#### Clear Handwheel Dial

Accurate control of carriage movement is essential in precision work. To secure full value from this Chucking Machine, an easy reading dial with carriage handwheel providing a fast, accurate and convenient way of controlling the travel and positioning of carriage. Dial graduations are 1/64".

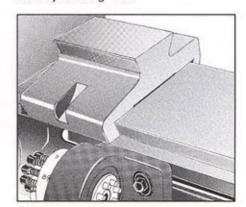


#### Hardened and Ground Steel Bed

Hardened and ground steel bed way resists wear. it's solid construction has no weakening holes or slots. Chip cannot fall on angular guide ways no slots or under cuts to wedge chips keep clean.

#### Bed Adapter For Double Tool Cross Slide

Additional tooling positions are available on all CYCLEMATIC Chucking Machines with the use of the bed adapter shown at the left. The bed adapter is used for mounting the standard double tool cross slide normally used on Second Operation Machines. This permits the use of all double tool cross slide accessory tooling such as standard tool holders, multiple tool holders, the straight and taper turning slide and any combination of this tooling applicable to the job being run.



## CYCLEMATIC

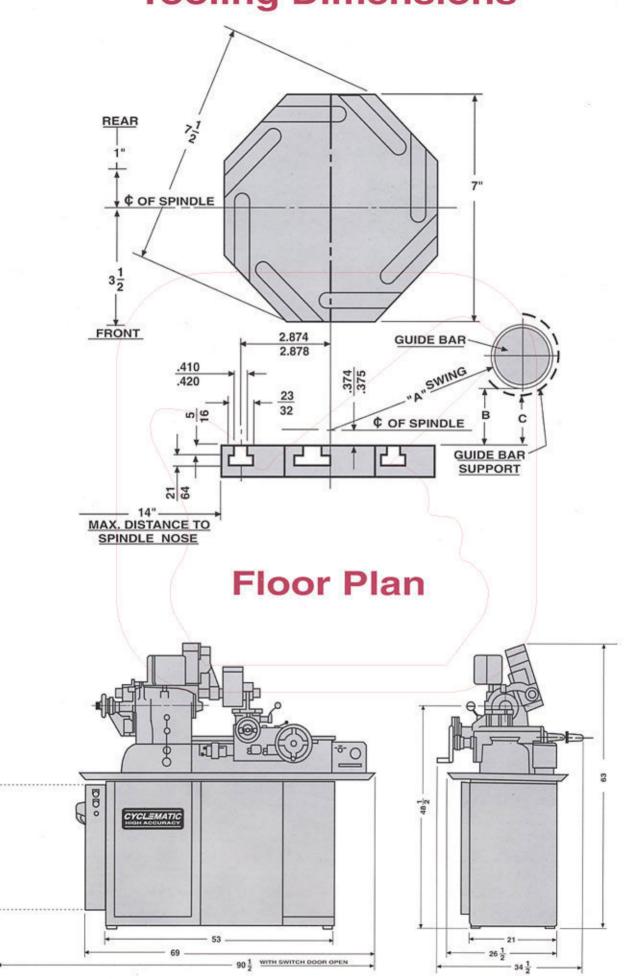
#### **CHR-68 SPECIFICATIONS**

Spindle	With Chuck	6"	152.44mm
	With Expanding Collets	3"	76mm
	With Round 5C Collets	11/16"	27mm
	With Hexagon 5C Collets	7/8"	22mm
	With Square 5C Collets	3/4"	19mm
	With Step Chucks	11/16"~6"	27 to 152.4mm
Spindle Nose Diameter		2.189"	55.60mm
Spindle Nose Thread		23/16"10R.H.	55.56mm
Spindle Speeds (Variable)		135-2955 R.P.M.	
Spindle Motor		1HP	
Carriage Power Feed Range (per minute)		1/4"~10"	6 to 250mm
Cross Slide Power Feed Range(per minute)		11/32"~61/4"	9 to 160mm
Travel of Cross Slide		41/2"	114mm
Travel of Double Tool Cross Slide		33/4"	95mm
Lenght of Bed		431/2"	1105mm
Maximum Fixture Diameter		9"	230mm
Maximum Distance from Face of Turret to Spindle		14"	355mm
Coolant Sump Capacity		3gals.	
Net Weight (approx)		1760 lbs.	800kgs
Gross Weight (approx)		2110 lbs.	960kgs
Dimensions(Packed for Shipment)		78"X39"X76"	1980X990X1930mr

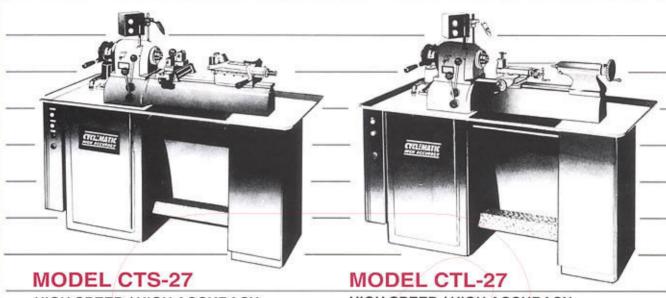
## STANDARD EQUIPMENT INCLUDED IN ALL MODELS

- Full enclosed preloaded ball bearing headstock with splash shield for spindle.
- Push button control for variable speed drive.
- Direct reading spindle speed indicator.
- Solid hardened and ground steel bed ways.
- Ball bearing lever collet closer.
- Automatic indexing eight position turret with preloaded ball bearing head, and cross-feeding with adjustable stations.
- Welded steel pedestal with knee space.
- Tool storage compartment with sliding ball bearing collet tray.
- Power cross slide feed screw feed for cross-slide.
- Four single and four double tool holders.
- Automatic driveshaft brake.
- Independent electrical variable power feed for turning facing and boring.
- Built-in coolant facilities with integral sump and selfdraining oil pan, and individual motorized pump.
- Infinitely variable speed drive complete with two speed, reversing motor and lever-operated controls for operation on 220 or 440 volt, 60 cycle, 3 phase current spindle (specify desired current).with a speed range of 135 to 2955 r.p.m.completely wired and assembled.
- Magnetic electric control panel for low voltage protection with start and stop push button operating on 110 volts. Time lag thermal overload relays provide.

### **Tooling Dimensions**

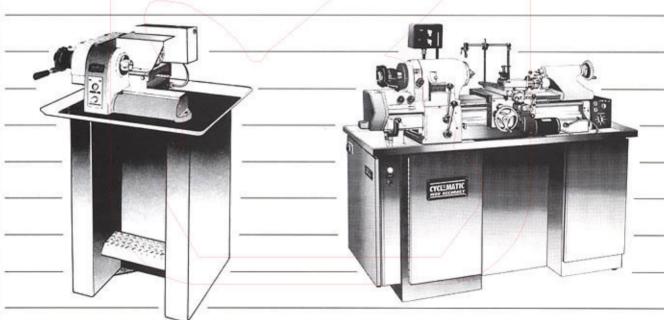


## ADDITIONAL MODELS FROM CYCLEMATIC



HIGH SPEED / HIGH ACCURACY SECOND OPERATION MACHINE

HIGH SPEED / HIGH ACCURACY SECOND OPERATION / TOOLMAKERS LATHE



#### **MODEL CP-27**

HIGH PERFORMANCE FINISHING LATHE

#### **MODEL CTL-618EM**

HIGH SPEED / HIGH ACCURACY TOOLROOMLATHE WITH NEGLISH METRIC DUAL SYSTEMS

#### DISTRIBUTOR:

#### MANUFACTURER:

CYCLEMATIC MACHINERY CO.,LTD.

20, LANE 50, MIN SHENG RD., SHEN KANG, TAICHUNG, TAIWAN.

TEL:04-5625393 / 5626509 FAX:886-4-5620298

E-mail: matic88@ms77.hinet.net http://www.cyclematic.com http://www.cyclematic.com.tw http://www.Toolrooms.com

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