



T & I Limited

Tea processing machinery from plucking to packing

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Clipper[®]

Dynam[®]

Clipper[®]

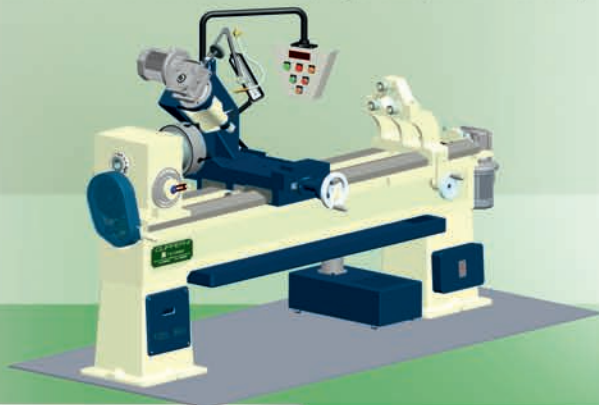
Complete Range of CTC Roller Sharpening Equipment



No matter how good CTC machines are, the desired 'cuts' can be obtained only if the rollers are sharpened accurately with quality finish. This is where T & I's range of sharpening machines scores over the rest. Built into the Clipper and Dynam range of machines is T & I's expertise in CTC process, painstaking quality, ruggedness and ease of operation.

CLIPPER® II MILLING MACHINE

- Cumbersome clutch-type feed box replaced by an improved compact drive system, also resulting in reduction in length.
- Reduction in number of moving parts, hence lower maintenance.
- Self cleaning lead screw.
- Machine suitable for milling of all CTC rollers up to 13 inch (330 mm) dia by a simple gear shift mechanism without changing any gears simply shift the gear by means of a lever.
- All controls are mounted on an overhead, adjustable panel for ease of operation.



FEATURES

BED : Heavy graded C.I. bed, stress relieved, hand-scraped and ribbed, with ISO trapezoidal profile.

HEADSTOCK : Heavy walled, fitted with phosphor bronze worm wheel and hardened and ground shafts, firmly seated on bed.

LEADSCREW : Alloy steel, precision machined, self cleaning.

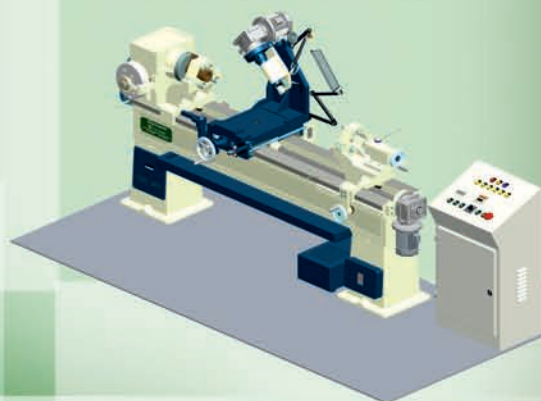
FORWARD DRIVE : Three speed, direct driven through a heavy duty helical geared motor

DYNAM ELECTRO CONTROL AUTOMATIC MILLING MACHINE

Following the stupendous success of its fore-runner the CLIPPER, an advanced version CLIPPER II was introduced with several new and exciting features making it the most versatile among all conventional milling machines.

Inspired by this T & I has come forward with yet another startling innovation - the DYNAM Electro Control Automatic Milling Machine.

DYNAM comes with all the advanced engineering features of CLIPPER-II plus many more. Its fully automatic control system ensures complete error free milling even when proper attention is absent.



ADVANTAGE

- Full automation, cutting down milling time by more than 25% and improving accuracy after..
- Auto cutting uniformity in milling depth.
- Auto indexing improves quality as indexing error is impossible.
- Auto tool retracting, Reversing & resetting saves time & labour.
- Auto recycling & auto stop.
- Manual back up for emergency operation.
- Labour Saving since one person can operate a chasing machine while Dynam takes care of the milling

	Clipper II	DYNAM
Overall dimensions		
Length	2630mm (8.63ft)	2750mm (9ft)
Width	1220mm (4 ft)	1150mm (3.7 ft)
Height	1800mm (5.9 ft)	1450mm (4.7 ft)
Weight		
Gross(Approx)	2200 Kg.	2460Kg.
Net (approx)	1980 Kg.	2080Kg.
Motors		
Saddle Feed	0.75KW (1.0HP)/960 & 2880 RPM	1.12KW (1.5HP)/1400 RPM
Milling Cutter	0.75KW (1.0HP)/1400 RPM	0.75KW (1.0HP)/1400 RPM
Coolant Pump	0.10KW (0.13HP)/2900 RPM	0.10KW (0.13HP)/2900 RPM
Cutter Auto feed & retract	--	0.03KW (0.05HP) 60 RPM
TOTAL	1.6KW (2.13 HP)	2.0KW (2.68 HP)

No. of Speeds of Lead screw : Three Forward & one Rapid Reverse

CLIPPER[®] DEDICATED GROOVER

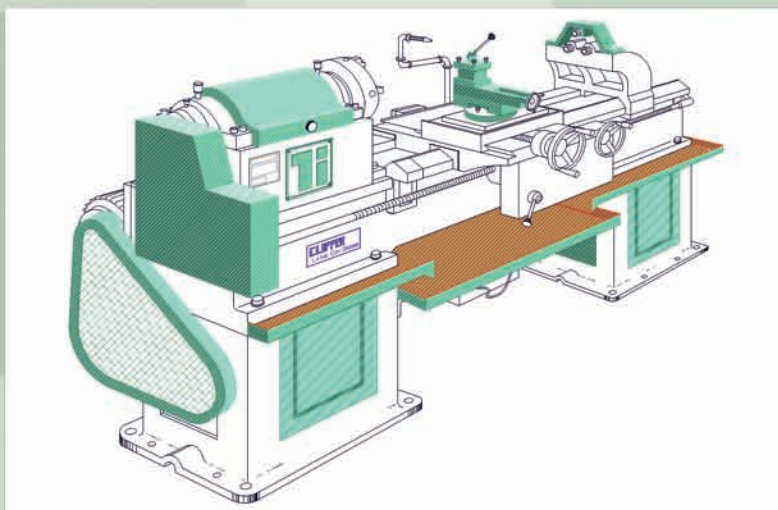
All lathes look alike, but a CTC roller grooving machine has to be much more than an ordinary lathe. The chasing operation requires a very sturdy machine since, since, the cutting forces are much higher due to multi-teeth contact/cutting, resulting in at any given time several teeth of a chasing tool are cutting into the roller resulting in heavy load on the various components- tool holder, saddle, cross slide etc. A lathe not suitably designed for such heavy loads will lead to vibration and chatter marks on the roller - an ideal recipe for poor cuts!

TECHNICAL FEATURES

- Low central height.
- Heavy graded C.I. bed, seasoned, hand scraped and ribbed, with inverted 'V' profile.
- Low spindle matched with phosphor bronze adjustable bush bearings.
- Special heavy duty tool post.
- Sturdy 3 roller support.
- A special imported nylon sandwich flat transmission belt for 98% power transmission.

The clipper is the only sharpening lathe that comes to you with tolerance as per IS 1878, Part I (ISO 1708) something that only the best of the lathes in the world can boast of.

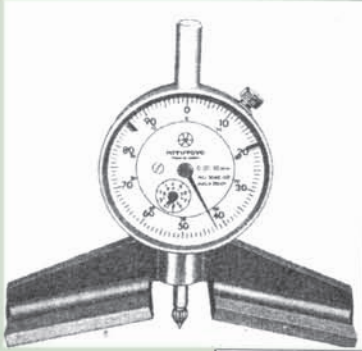
Fitted with the optional Digital Read-out (DRO) introduced for the first time in the tea industry by T&I, the lathe is guaranteed to give you accuracy to 5 microns.



	Clipper Dedicated Groover	CLIPPER Lathe cum Groover
Centre Height	270 mm (10.62 ins)	270 mm (10.62 ins)
Distance between Centres	1488 mm (4.88 ft)	1488 mm (4.88 ft)
Length of Bed	2672 mm (8.77 ft)	2672 mm (8.77 ft)
Overall dimensions		
Length	2760mm (9 ft)	2760mm (9 ft)
Width	1300 (4.2ft)	1300 (4.2ft)
Weight		
Gross (Approx)	2800 Kgs	2800 Kgs
Nett (Approx)	2000 Kgs	2000 Kgs
Power		
Main Drive Motor	2.2 KW (3.0 HP)/925 RPM	2.2 KW (3.0 HP)/925 RPM
Coolant Motor	0.10KW (0.13HP)/2900 RPM	0.10KW (0.13HP)/2900 RPM

CLIPPER milling cum chasing machine also available. Please ask for details.

WORKSHOP ACCESSORIES



CHECKMATE

A handy gadget specially developed by T&I enables you to measure accurately the difference of the depth between milling & chasing grooves, an important factor for good CTC cuts. The kit includes an adjustable microscopic scale to measure the shoulder & slope length for maintaining correct shoulder to slope ratio. A must for every roller sharpening workshop and factory.

MOBILE CRANE

A specially designed crane for loading, unloading & carrying CTC rollers. Mounted on poly wheels with efficient steering mechanism for easy maneuverability. Built in wire rope winch.

ROLLER CHECKING JIG

For checking the meshing of CTC rollers. Mobile, mounted on castor wheels. Suitable for width.



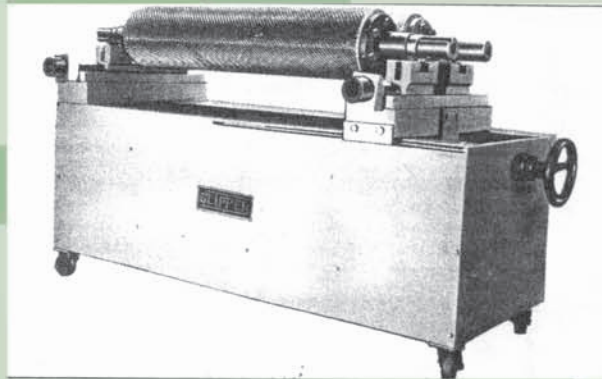
DOUBLE ENDED CUTTER AND CHASER GRINDER

A special purpose machine for regrinding of CTC chasers & milling cutters. Complete with 0.5 HP/ 3000 RPM motor and starter. Mounted on fabricated steel pedestal.



ROLLER CHECKING JIG

For checking the meshing of CTC rollers. Mobile, mounted on castor wheels. Suitable for rollers upto 48" width.



ADue to a continuous process of Product development, designs are subject to change without prior notice



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