Marubeni Citizen-Cincom Inc.

C-320

The C-320 is an Automatic Magazine style Bar Feeder designed for feeding round, square, and hexagonal bar stock into Citizen CNC lathes.

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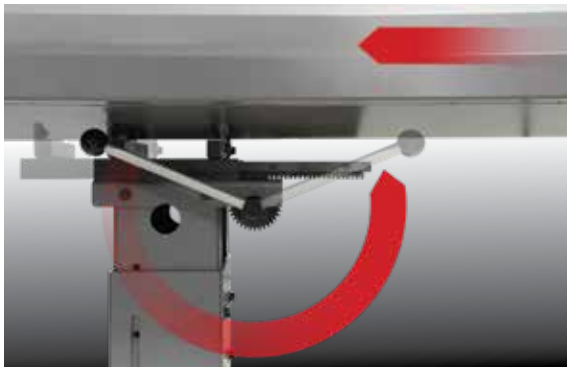
The Marubeni Citizen-Cincom C-320 is designed for automatically feeding round, square and hexagonal bar stock in lengths up to 12', in a diameter range of 3-20 mm, into Citizen CNC lathes.

Axial Track

The C-320 has a two-position axial shifting device as standard equipment for operations in both Non-guide Bushing and Guide Bushing Modes.



Dual Anti-Vibration Devices

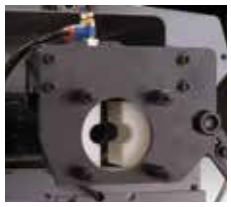
Dual anti-vibration devices stabilize the bar stock at two critical points between the guide channel and lathe spindle maximizing RPM potential. Its adjustable roller design provides superior support and easy set up of all bar diameters without the cost of multiple bearing blocks.

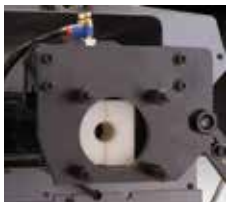
- The first roller steady rest is mounted internally to the front of the bar feeder providing support to the bar as it enters the telescopic nose.

- The second roller steady rest is outboard mounted onto the rear of the sliding headstock following the stock as the headstock moves on the z-axis. The bar stock and bar pusher are held in center at the rear of the headstock in both feeding and turning operations.

Bushing Blocks

Optional bushing blocks replace rollers on out-board steady rest when running shaped stock.





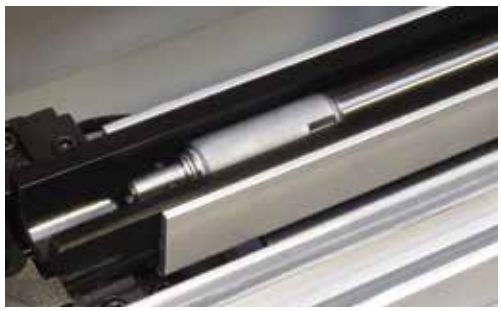
Gripper - Remnant Retract

The gripper device holds and inserts the new bar into the bar collet and is also used to extract the remnant. Bar ends that are free of burrs require no additional chamfering. The gripper requires no adjustment for bar size changes as it "self-centers".

The bar remnant is withdrawn to the back end of the magazine. A gripper extracts it from the bar stock collet and deposits it in a hide-away remnant basket.

CAV Rotating Tip Unit

The bar pusher is equipped with a standard rotating tip that ensures smooth running at high RPM. The bar stock collet is a common quick change type.



Sync Device

As a standard feature on the C-320, the Synchronization device for Swiss style lathes employs an electromagnetic coupling, mechanically linking the lathes headstock's z-axis travel to the bar feeder's pusher to ensure synchronous movement and no loss of connection between the bar stock and collet-pusher.

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Belt Drive
The C-320's double pusher system is propelled by a toothed belt for accuracy as well as smooth, quiet running.

Control
A Schneider controller and servo drive provide the C-320's motion control and functionality.

Remote Pendant
The C-320 features the convenience of an easy-to-use remote control pendant. Functions include:

- manual and automatic operation
- manual load/unload of bar stock for set-up and/or change over
- movement of bar pusher
- emergency stop

Single Point Adjustment
Easy to use, bar diameter adjustment. Stock diameter change is accomplished with the turn of a single bolt. Quick, on the fly switching of bar stock saves time and increases productivity.

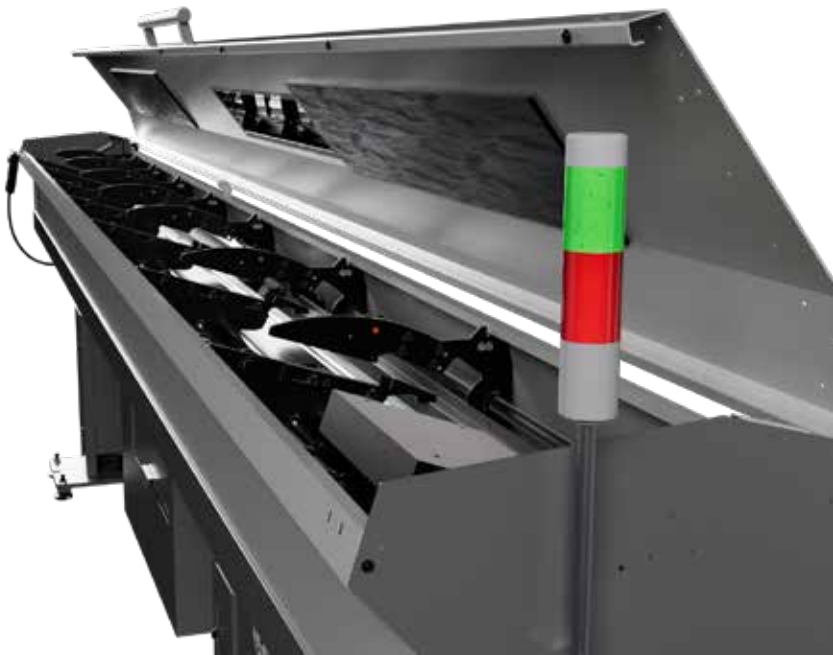
Operator Control Panel
The control is easy to program, yet flexible enough for all applications. Memory storage for 300 jobs simplifies changeovers. Alarms are well defined and displayed on the operator control panel. Panel swings out for ease of use.

Double Pusher
The two pusher system drastically reduces the overall length of the unit by as much as 4 feet. A short pusher pre-feeds the bar, then a second full-length pusher lowers into position to continue the feeding process.

Robust Construction
Heavy gauge structural steel ensures rigidity and long term durability.

Large Storage Capacity
The bar stock magazine is an incline rack with a loading capacity of 10 linear inches. Bars can be loaded from the front or the rear sides of the bar feeder.

Stock Alignment Guides
The bar stock alignment guides are quickly and easily adjusted for different bar diameters, effectively reducing set up time.



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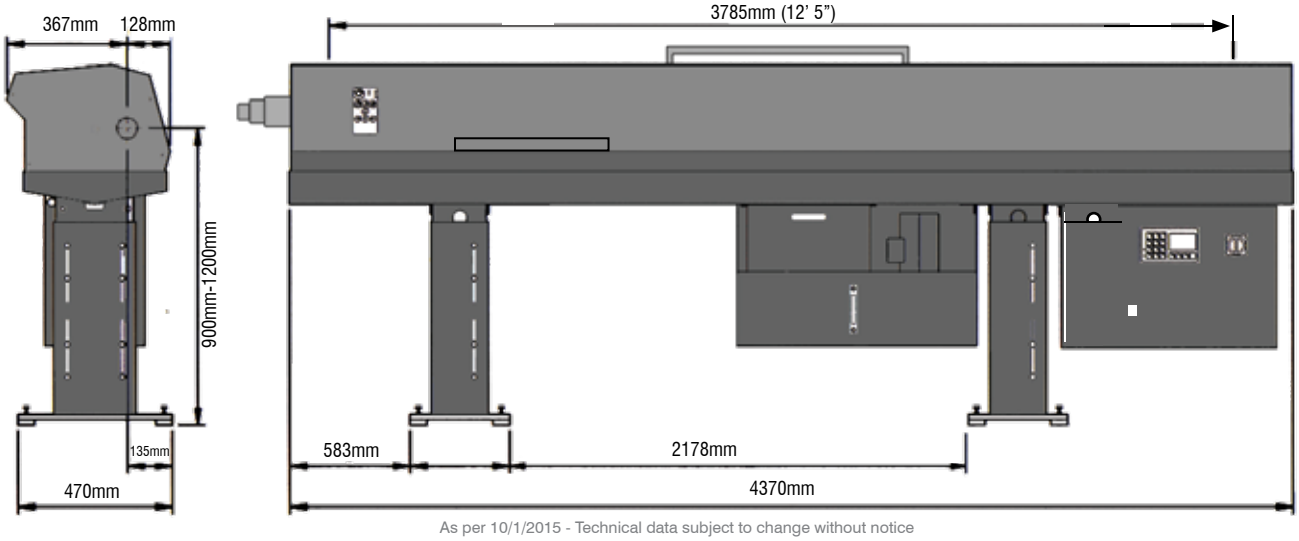
Technical Data

- **Power consumption**
  1.5 kW
- **Feed force**
  adjustable, max. 450 N
- **Forward feed rate**
  adjustable max. 600 mm/sec
- **Return feed rate**
  1000 mm/sec
- **Loading time**
  30 sec (for 12 ft. bars)
- **Oil capacity**
  46 liters (12 gallons)
- **Oil viscosity**
  ISO 100 cST
- **Operating voltage**
  230 V/60 Hz
- **Compressed air supply**
  6 bar (90 psi)
- **Compressed air consumption**
  approx. 8 liters per loading cycle
- **Weight**
  1320 lbs (600kg)
- **Remnant length**
  381mm max (15 inches)
- **Maximum Bar Length**
  3785 mm (12'5")
- **Bar Diameter Range**
  3-20 mm (1/8"-3/4")

Channel Set	Pusher Ø	Min	Max	Max Bar With Remnant Ejection
8	7	3mm (.118")	5.8mm (.231")	7mm (.275")*
11	10	3mm (.118")	9mm (.354")	10mm (.393")*
14	12	3.2mm (.125")	11mm (.437")	13mm (.512")*
18	16	5mm (.196")	13.5mm (.531")	17mm (.669")*
20	18	8mm (.315")	18mm (.709")	19mm (.750")*
22	20	8mm (.315")	19mm (.750")	21mm (.826")*

* Diameters can be achieved if bar ends are turned down or if forward ejection of the bar remnant is possible.



As per 10/1/2015 - Technical data subject to change without notice

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