

CITIZEN

# CAV

Bar Loaders for Cincom Turning Centers



# PERFECT SYNCHRONIZATION

Engineered exclusively for CINCOM CNC Swiss type lathes



No other bar loader is built exactly like a CAV, because CAV and only CAV, is engineered for use exclusively with CINCOM Swiss style turning centers. Instead of compromising to meet the needs of many machines, the CAV is specialized to meet just one.

It's perfectly configured to the speeds, torque, power and axis movements of the CINCOM, allowing it to respond with the pre-

cise movements needed for optimum precision, performance and productivity.

The CAV and the Cincom share the same CNC controller and the same electrical system. Space requirements are reduced and the combination CAV bar feeder & CINCOM turning center assures exceptional quality at an affordable price.



**CAV20L3E**



**CAV25DE**



**CAV32M5F**



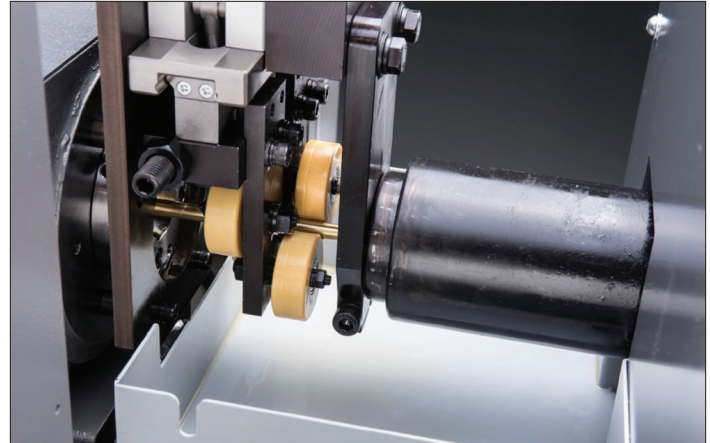
**CAV32LF**



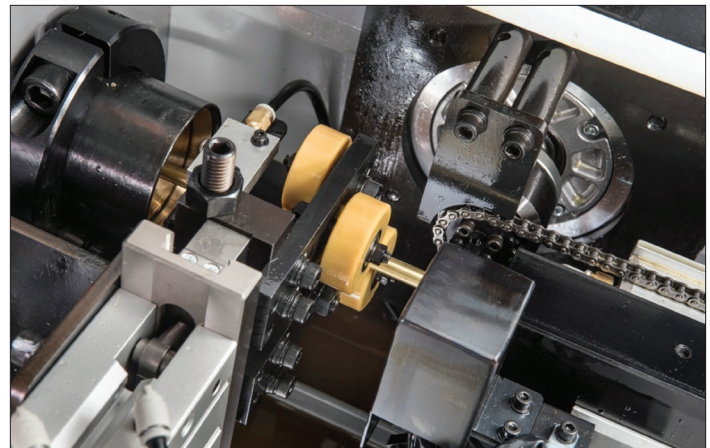


## Unique features

- Fully integrated into the machine control for easier operation and total control from a single console
- The fastest response between the bar feeder and the machine's sliding headstock in the industry
- Improved accuracy when specs are critical
- A unique stabilizing mechanism to minimize wear and down time
- The A7 axis reduces moving parts, provides instantaneous insertion and braking response, and positioned bars to tenths accuracy with no following error
- Hydrostatic oil support
- Roller support system
- Automatic remnant retraction
- Versatility – round, hex and square stock
- And just one company to contact for parts and service



Cincom's unique bar and spindle stabilizing mechanism precisely aligns the bar's center of rotation with the center of the spindle. Forces are evenly distributed, protecting the spindle from excessive wear and vibration.



Oil/roller support system: as the bar rotates, it becomes hydrostatically supported in a bath of oil and is perfectly centered in the guide channels. Even with full length 13' bars, the lathe can operate noise-free and vibration-free at speeds to 15,000 rpm.



Space saving pusher design: an auxiliary device pre-positions the bar.

## Unique features



Complete bar change is approximately 35 seconds.



A7 axis motor is synchronized with the Z1 axis motor while the main spindle collet is closed.

## CAV12-LS-IS-4.0M

### 1MM-16MM

**The new CAV12 1mm-16mm (0.04 - 0.629") screw type bar separator system exclusively for the CINCOM L12VII and L12X.**

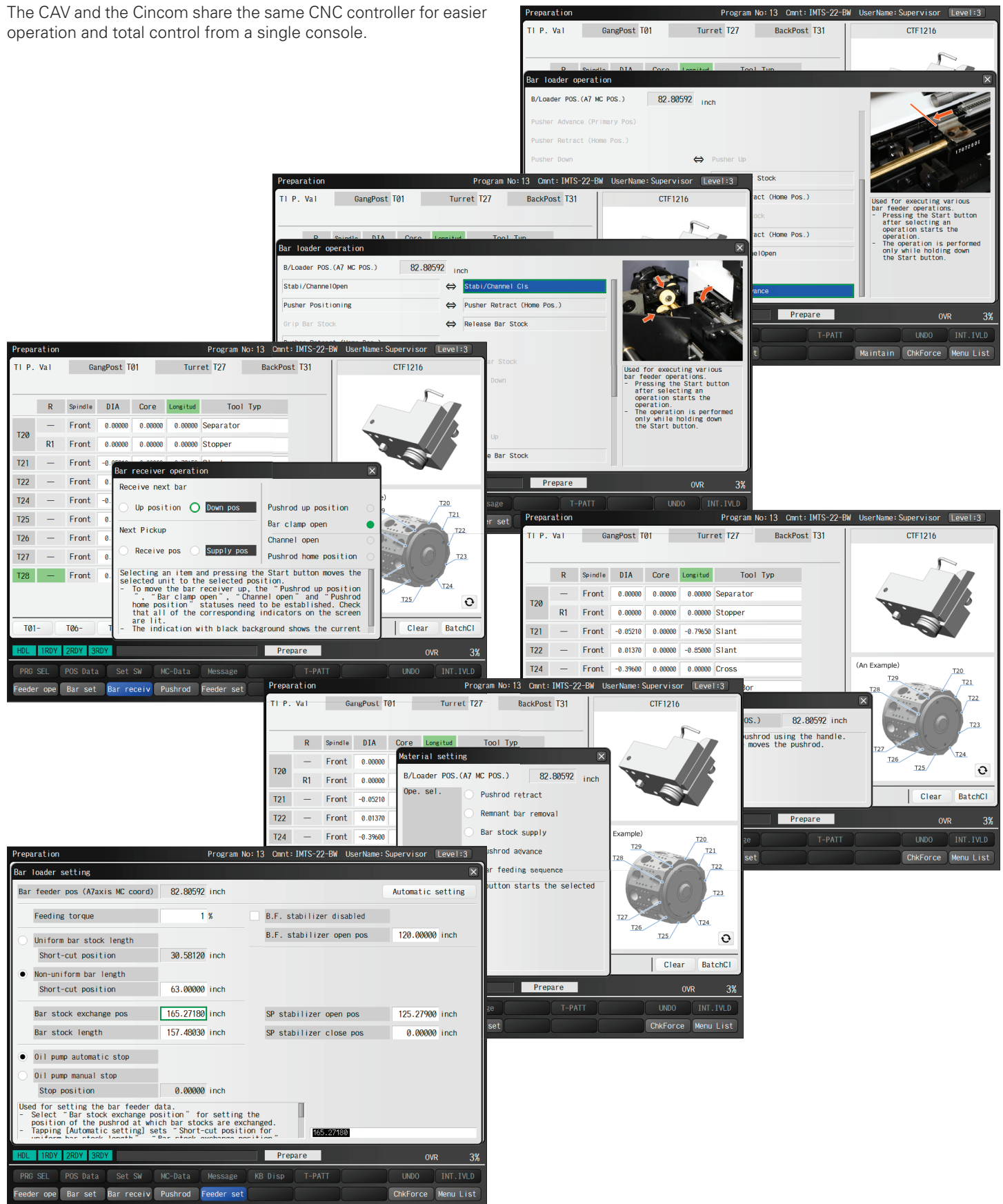
- 2 Meter (6') max for 1 mm-1.4 mm (0.04"-0.055") bar
- 4 Meter (12') for 1.5mm-16mm (0.059"-0.629") bar
- 13 mm (0.511") channel set will come standard with the 13 mm screw-set which is able to hold 12 bars
- Other channel sizes available:  
4 m ( 0.157"), 7 mm (0.275"), 10 mm (0.393),  
16 mm (0.511") (12 bars)
- Standard screw-set size 13 mm (12 bars)
- 4 mm screw-set holds 24 bars (option)
- 16 mm screw-set holds 9 bars (option)
- Channel change over (20 min)
- Channel change with screw set approximately 45 min.



Cav12-LS-IS Screw Set

# User friendly

The CAV and the Cincom share the same CNC controller for easier operation and total control from a single console.

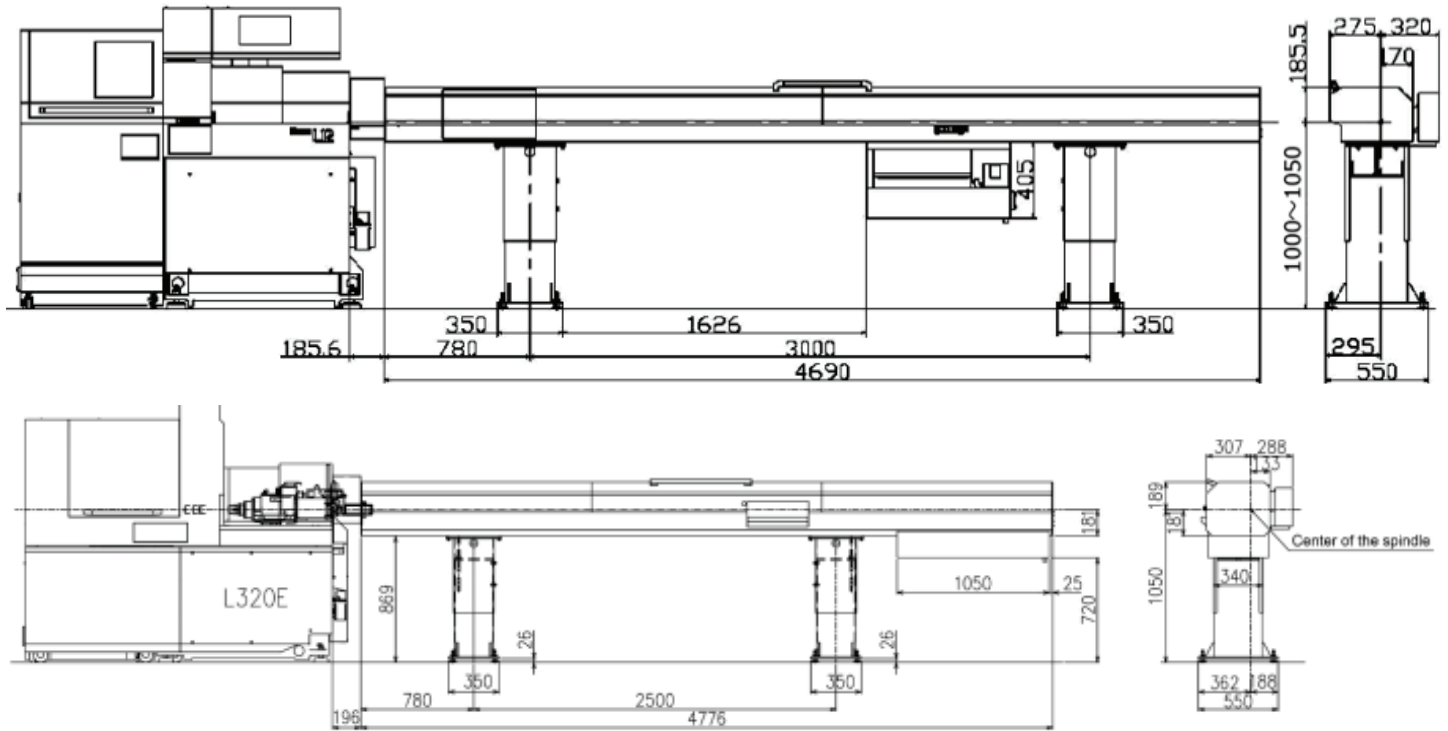


CAV operation screens located in the machine's preparation mode.

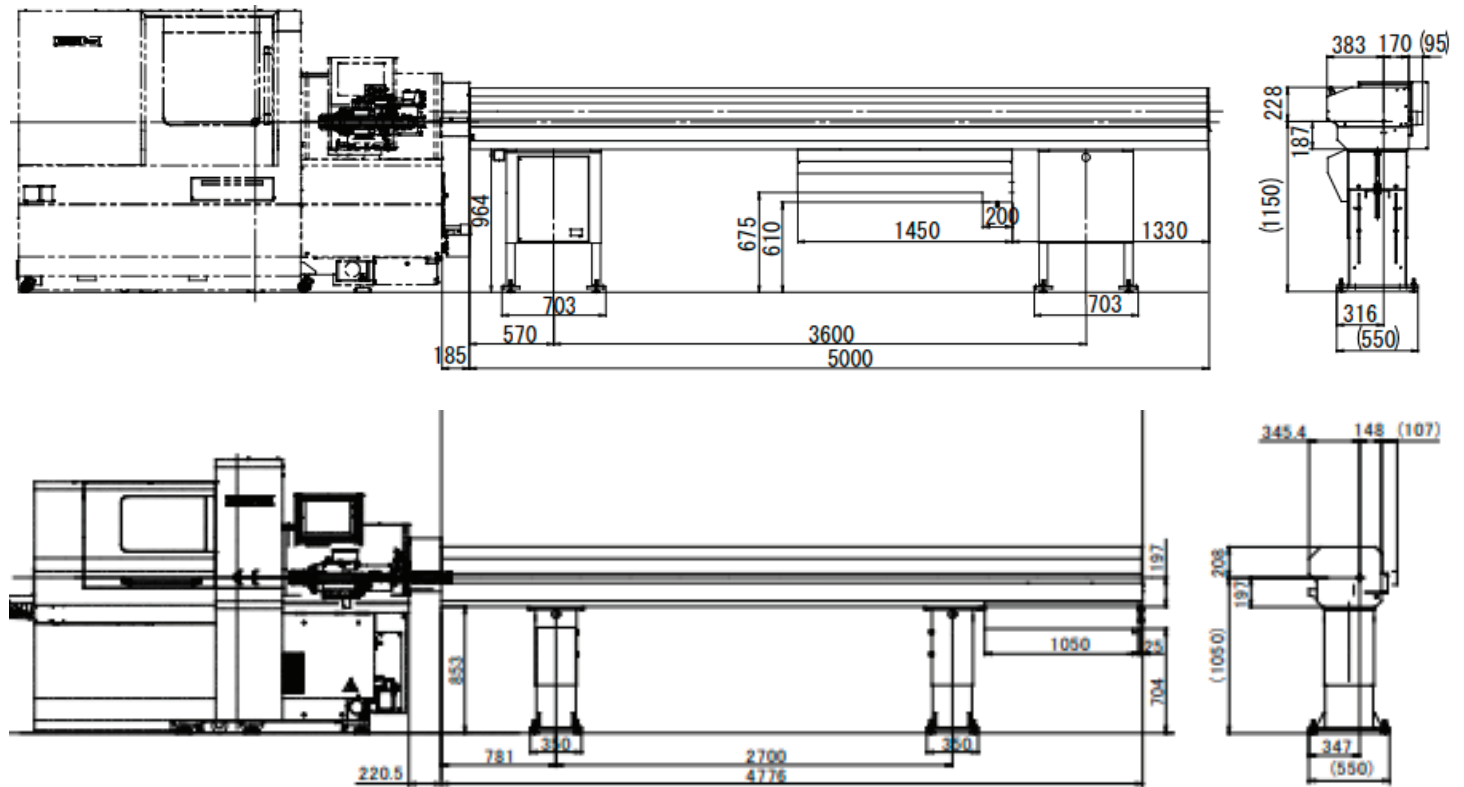


# Layout

## L12/L20



## L32/M32/D25



# Machine Specifications

Model	CAV12-LS	CAV20-L3E	CAV25-DE	CAV32-LF	CAV32-M5F
Bar diameter	1 to 12 mm <sup>1</sup> (ø16 option)	3 to 25 mm <sup>2</sup>	3 to 32 mm <sup>2</sup>	3 to 38 mm <sup>2</sup>	3 to 38 mm <sup>2</sup>
Number of bars that can be accommodated	12 (ø12 mm) 24 (ø10 mm) with option	12 (ø20 mm) 24 (ø10 mm) with option	9 (ø32 mm) 18 (ø16 mm) with option	9 (ø32 mm) 18 (ø16 mm) with option	9 (ø32 mm) 18 (ø16 mm) with option
Spindle height	1,000 mm	1,050 mm	1,050 mm	1,150 mm	1,150 mm
Size	4M				
Bar length	1000 to 4050 mm				
Spindle support	Roller support of 4-roller type (installed on the main device side)				
Support and channel	1 set				
Power source	Input power capacity: 1.0 kVA, Power voltage: 200/220 VAC, Frequency: 50/60 Hz (supplied from the main device side)				
Oil	ISO VG20	ISO VG34 or VG24	ISO VG68	ISO VG68	ISO VG68
Amount of oil	25 liters (6.6 gallons)	57 liters (15 gallons)	57 liters (15 gallons)	57 liters (15 gallons)	57 liters (15 gallons)
Device mass	520 kg	570 kg	650 kg	950 kg	950 kg

<sup>1</sup> Small bar attachment (~ø4 for CAV12 only, ~ø7, ~ø12, ~ø16 optional) appropriate to material diameter is required.

<sup>2</sup> Use an optional attachment (~ø7, ~ø12, ~ø20, ~ø25, ~ø35 or ~ø38) appropriate to material diameter.

Manufacturer	Product name
MOBILE OIL	DTE oil light VG20 -VG68 (see oil viscosity above for your machine)
COSMO OIL	Hydraulic AW20-AW68 (see oil viscosity above for your machine)
NIPPON OIL	Super Highland 20-68 (see oil viscosity above for your machine)

## Standard Attached Parts

Pusher assembly
Finger chuck (FC)
Chuck joint (CJ)
Centering jig
One-touch collar
Spindle support

## Consumable Parts List

Pusher assembly
Finger chuck (FC)
Chuck joint (CJ)
One-touch collar
Spindle support
Roller (for spindle support and workpiece support)
Workpiece clamping claw
Guide channel
Telescopic pipe

# Marubeni Citizen-Cincom Inc.

40 Boroline Road  
Allendale, NJ 07401  
201-818-0100

2316 Touhy Avenue  
Elk Grove Village, IL 60007  
847-364-9060

17815 Newhope Street, Suite P  
Fountain Valley, CA 92708  
714-434-6224

68 Moylan Lane  
Agawam, MA 01001  
413-786-6655

[www.marucit.com](http://www.marucit.com)

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