

## No. 36TBC CNC Turn/Bore/Cut-Off Lathe

36TBC



- Continuous part processing
- Automatic load/unload
- Large thru-hole capacity



# No. 36TBC CNC Turn/Bore/Cut-Off Lathe speeds production and cuts cost

The Bardons & Oliver 36TBC automatic lathe, with associated handling equipment and CNC control, provides a systems approach to producing parts in a single operation ... performs a variety of functions that usually requires several machines ... speeds production and cuts costs.

- **Versatile.** Turns, bores, threads and cuts off.
  - **Speeds production.** Produces parts in one operation that formerly required multiple operations such as cut-off and chucking.
  - **Reduces overhead.** Magazine-type loading tables and automatic part pick-off attachments eliminate manual handling of parts. One operator can run several machines.
  - **Cuts costs.** Ideal for efficiently handling simple large diameter tubing and bar jobs that are normally run on significantly higher cost, slower machines. One unit performs functions of several machines. Less expensive than conventional thru-hole CNC machines.
- **Saves floor space.** The 36TBC requires less space than ordinary large hole CNC lathes.
  - **Flexible programming/fast set-ups.** CNC control permits selection of any combination of cuts, rough and finish, speeds and feeds to optimize cycle time, finish and dimensional requirements.
  - **Simple tooling.** Allows family or similar parts to be run using the same toolholders and inserts.
  - **Continuous automatic cycle.** Magazine-type stock loader with custom part unloading.



*The 36TBC efficiently produces gear blanks, piston rings or inserts, transmission parts, spacers, steering parts, axles, cylinders and ordnance parts.*

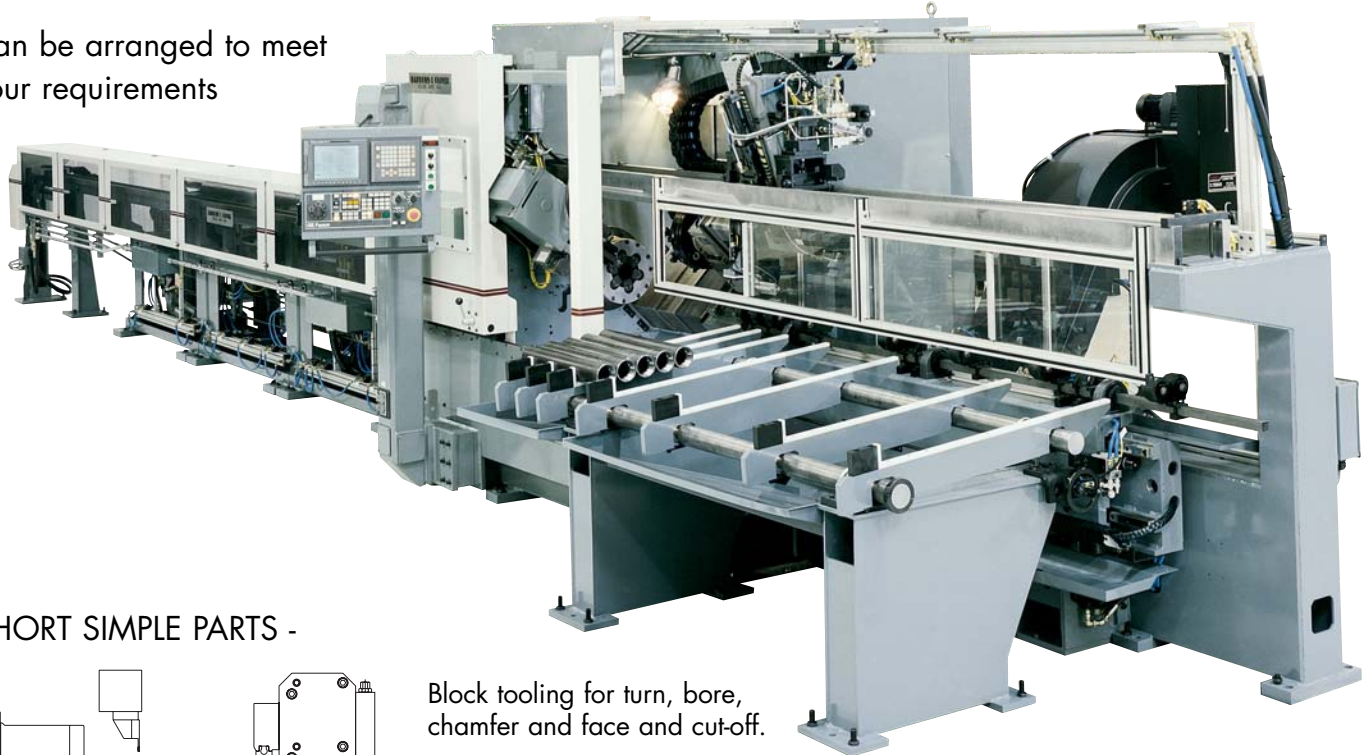


*Outer bearing race machined on Bardons & Oliver 36TBC includes OD turn, ID bore, face, chamfer and cut-off.*

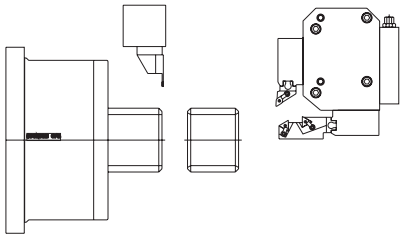


# MACHINE CONFIGURATIONS

Can be arranged to meet your requirements



## SHORT SIMPLE PARTS -

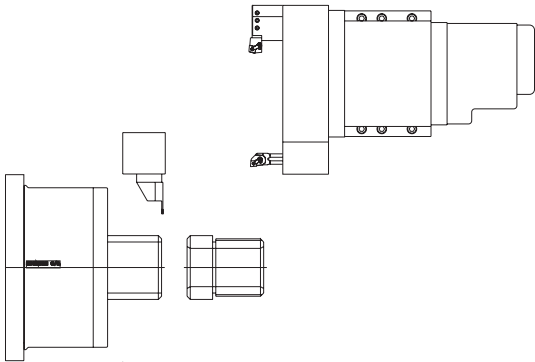


Block tooling for turn, bore, chamfer and face and cut-off.

Retractable stop for short feed out lengths.

Automatic part pick-off attachment, part blow-off station and stripper for discharge.

## SHORT COMPLEX PARTS -

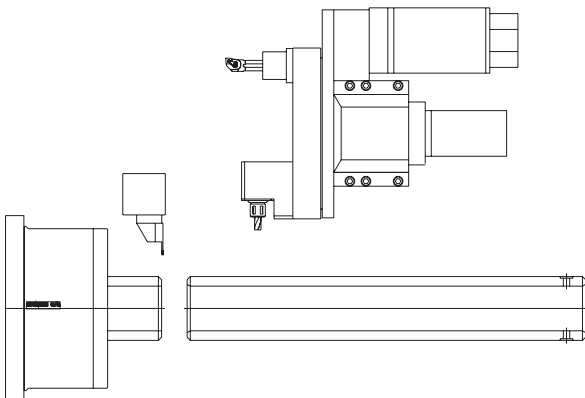


8 Station disc type turret for turn, bore, profile, groove, thread and cut-off.

Retractable stop for short feed out lengths.

Automatic part pick-off attachment, part blow-off station and stripper for discharge.

## LONG PARTS -



8 Station disc type turret OR  
8 Station disc type turret with live tooling.

Retractable stop mounted on ways with ball screw drive programmable adjustment.

Automatic special long part steady rest support and unloader with discharge table.



# FEATURE BY FEATURE ...

## The 36TBC is unmatched for performance, dependability and part quality

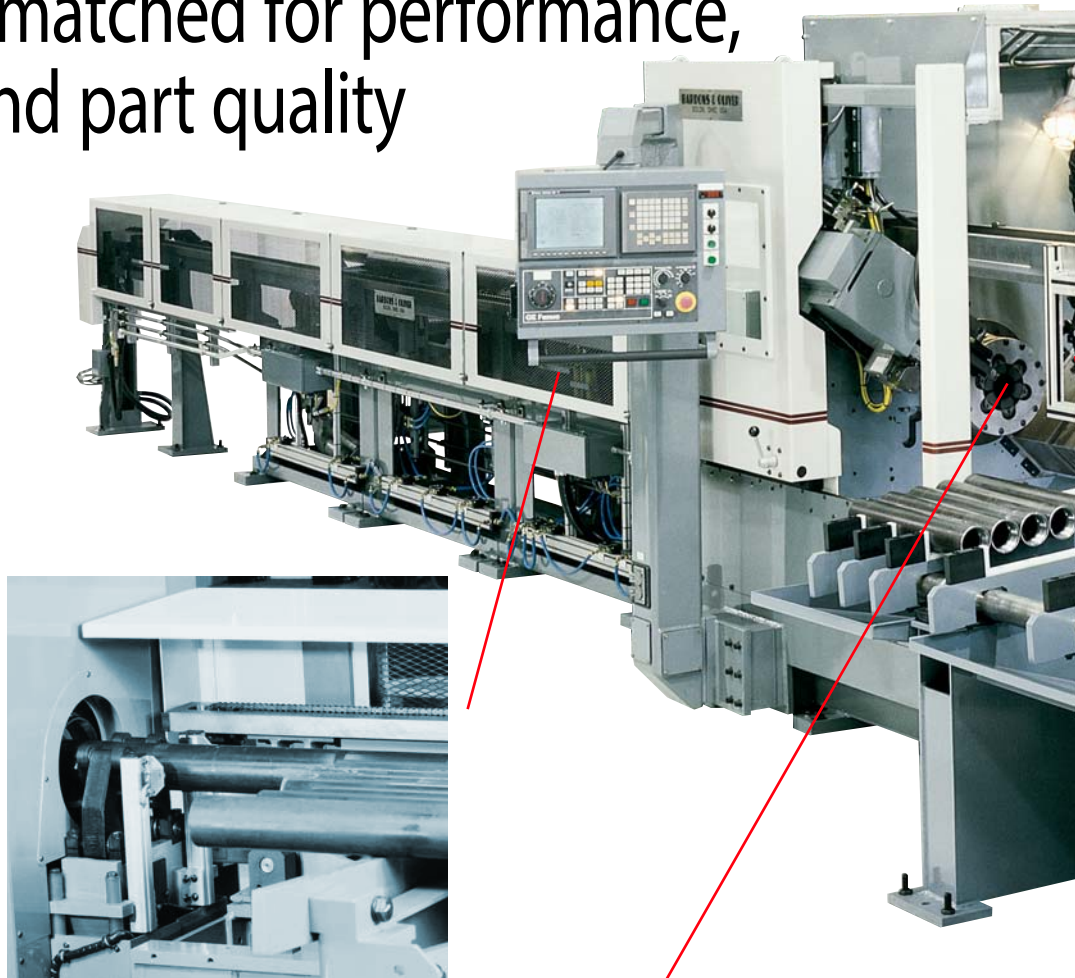
- **FANUC CNC CONTROL**

Standard CNC programming or custom software for your application.

- **AUTOMATIC MAGAZINE LOADING**

Automatic loading tables keep stock in the machines at all times, which lets one operator run more than one machine. All handling equipment is designed with unitized construction, so it can be easily modified to meet your specific requirements.

The loading table loads one length of material after another into the machine and then automatically crops a pre-determined amount off the leading end and ejects the remnant end.

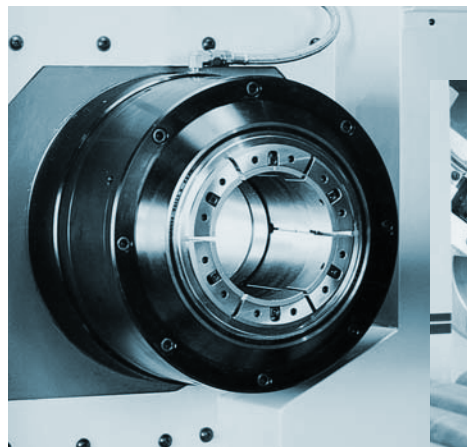


**SELF CENTERING STEADY REST**  
*Self centering steady rest at rear of spindle supports work, keeps material centered.*



**OVERHEAD CUT-OFF SLIDE**

Adds a third axis to allow for faster cycle times with overlap of slide use and saves a tool position on the turret or block type tooling.



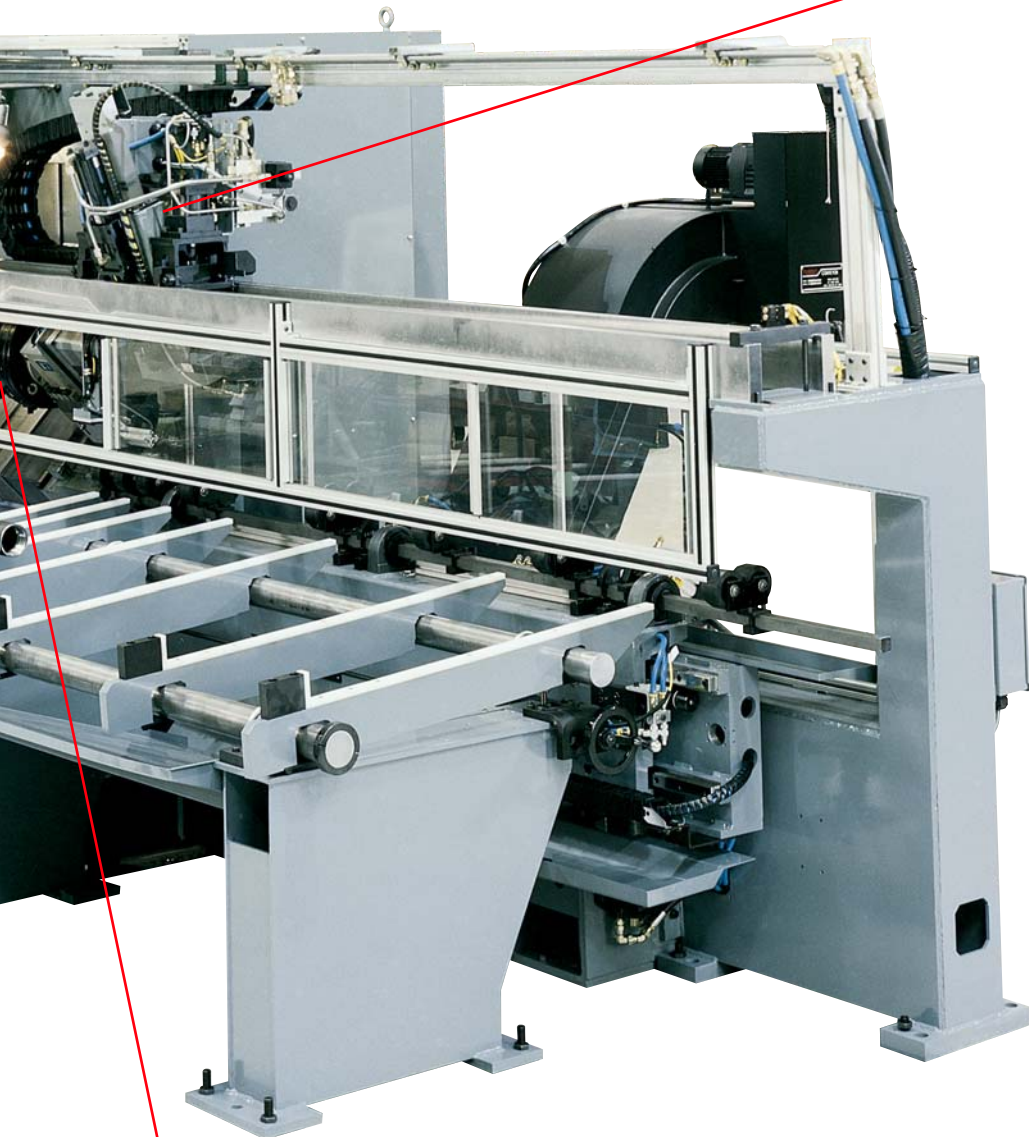
**CHOICE OF SPINDLE CAPACITIES**

1.500" to 7.00" with self contained collet chuck.

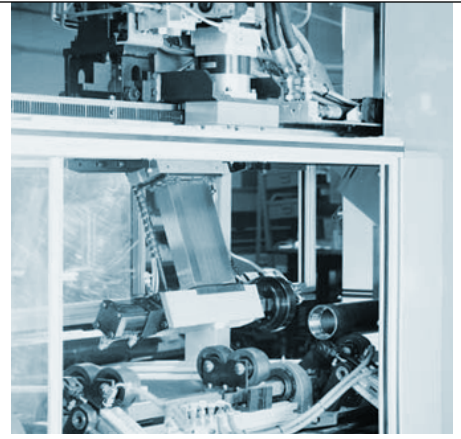
1.00" to 5.500" with special collet that covers plus/minus 0.375" variation in material OD size with quick change collet pads.







## CHOICE OF TOOLING FOR TWO AXIS REAR SLIDE



- **HEAVY DUTY STOCK STOP**

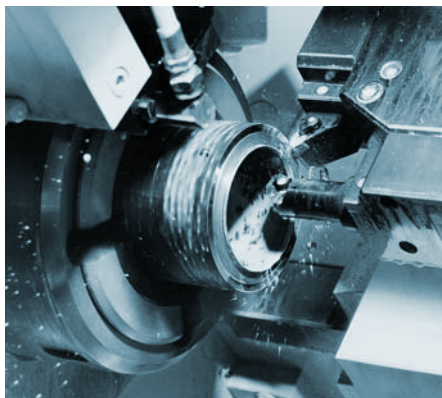
The stop is mounted on two rigid large steel ways and is positioned automatically with a servo, then clamped in position with a hydraulic power lock.

The CNC control allows programming of exact lengths and minimizes tube waste by allowing multiple part lengths to be cut from the same tube.

The stop can be furnished in any length up to 15 feet.

- **RELIABLE AUTOMATIC UNLOADING**

The automatic unloader supports stock during feed out and machining of back end weld preps, chamfers and cut-off operations.

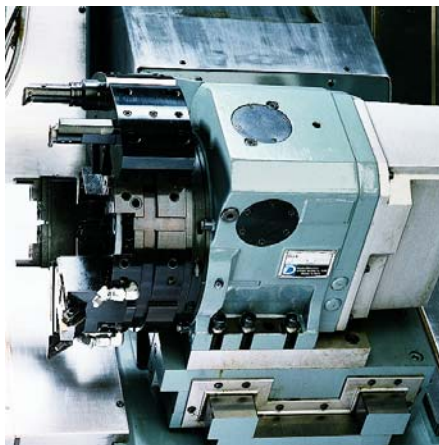


- **BLOCK TOOLING**

Turning and boring tools are mounted on the rear two-axis slide in a solid building block type toolholder.

- **8 STATION TURRET**

Optional 8 station turret for parts that require additional tools.



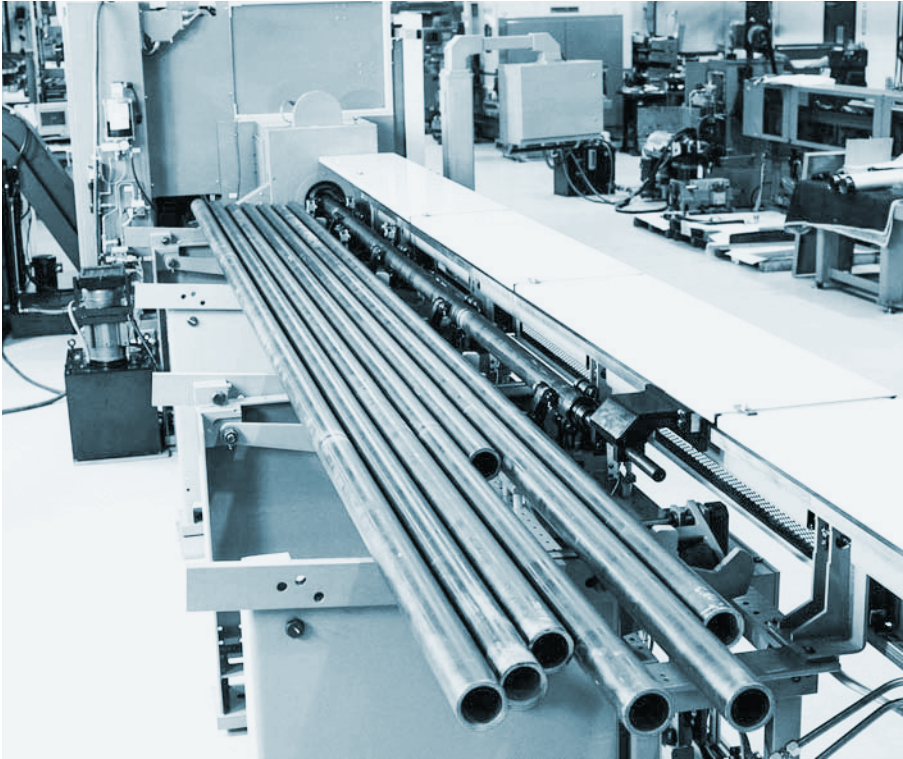
- **8 STATION TURRET WITH LIVE TOOLING**

Optional 8 station turret with **live tooling** for parts that require drilling or milling.



# Bardons & Oliver: The Acknowledged Industry Leader in Material Handling

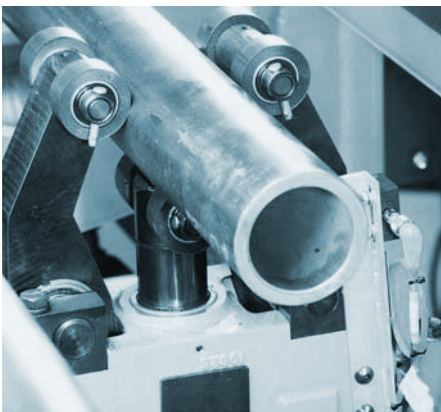
## LOADING:



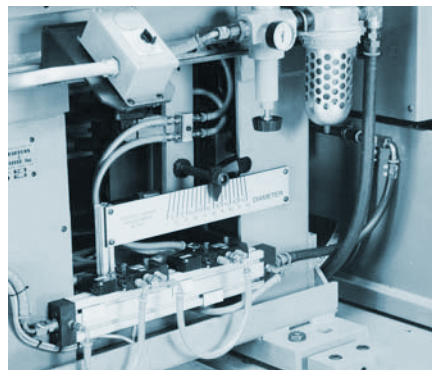
Automatic magazine tube and bar loader is available to feed stock from 6 to 60 feet.

### Automatic Loading Maximizes Productivity

- Automatic loading of material from storage magazine into machine spindle as required.
- Automatic trimming of the leading end of each new tube or bar.
- Automatic ejection of the remnant end.
- Handles random lengths easily.
- Rail mounted pusher head with encoder feed back pushes stock through the spindle eliminating maintenance and marking problems normally associated with a roller feed or pinch roll device.



Long tubes and bars are supported with the loading table steady rest system. No adjustment is required for different stock diameters.



Stock diameter changeover is fast and easy with our electric screw-driven height adjustment.

- **MAGAZINE STORAGE AREA** can be extended with a buck type loading system or simple storage extensions with gate arms for isolating a bundle break area.



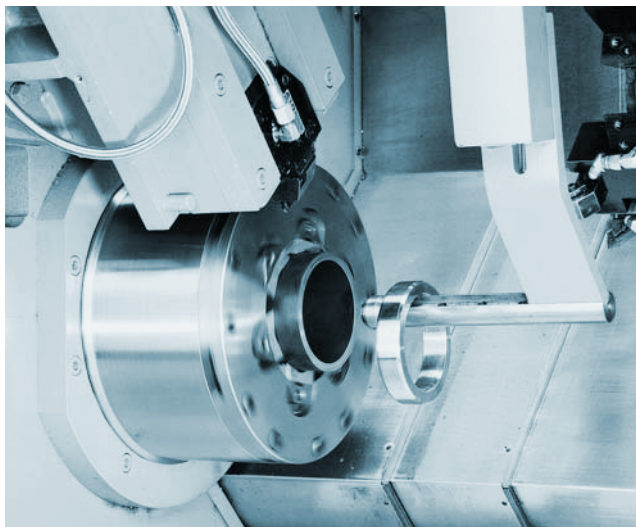
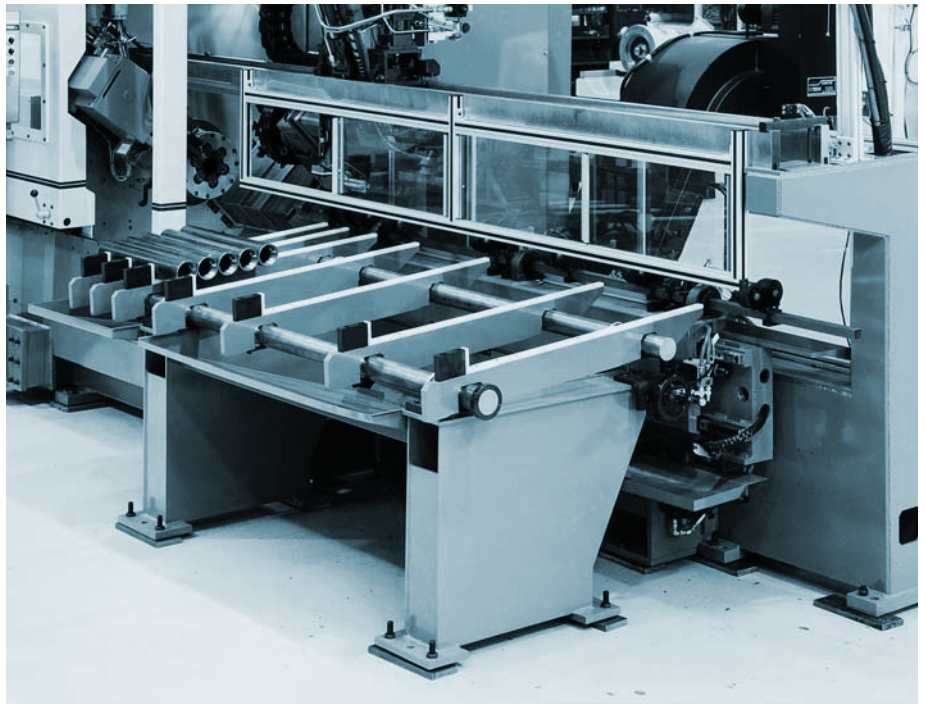
**SPECIAL LOADERS** can be supplied to handle material such as cast iron tubes and aluminum extrusions.

# UNLOADING:

## Automatic, reliable unloading maximizes throughput

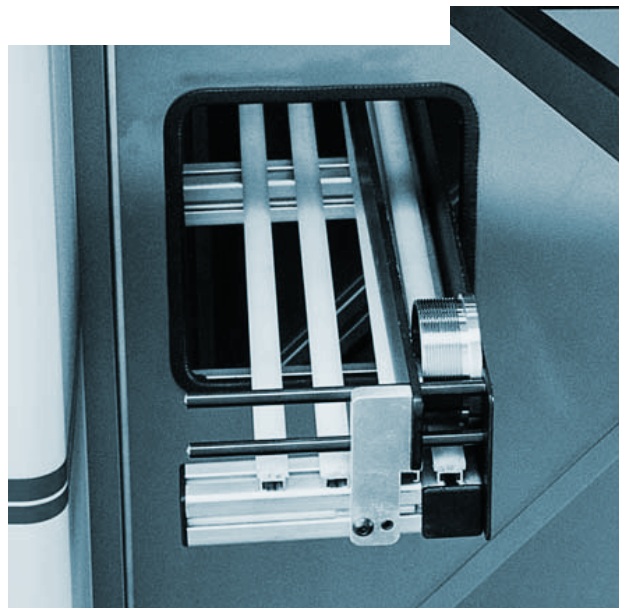
Proper handling from start to finish is assured with a choice of unloading systems to fit your particular application.

**Long parts**—such as hydraulic cylinder bodies are supported during feed out and machining of back end weld preps, chamfers and cut-off operations.



*Automatic part pick-off attachments.*

**Short parts**—such as bearing races, gear blanks, piston rings, cylinder liners, transmission parts and spacers can be picked off during cut-off and retracted from the work area, stripped off the pick-off and discharged down a chute.

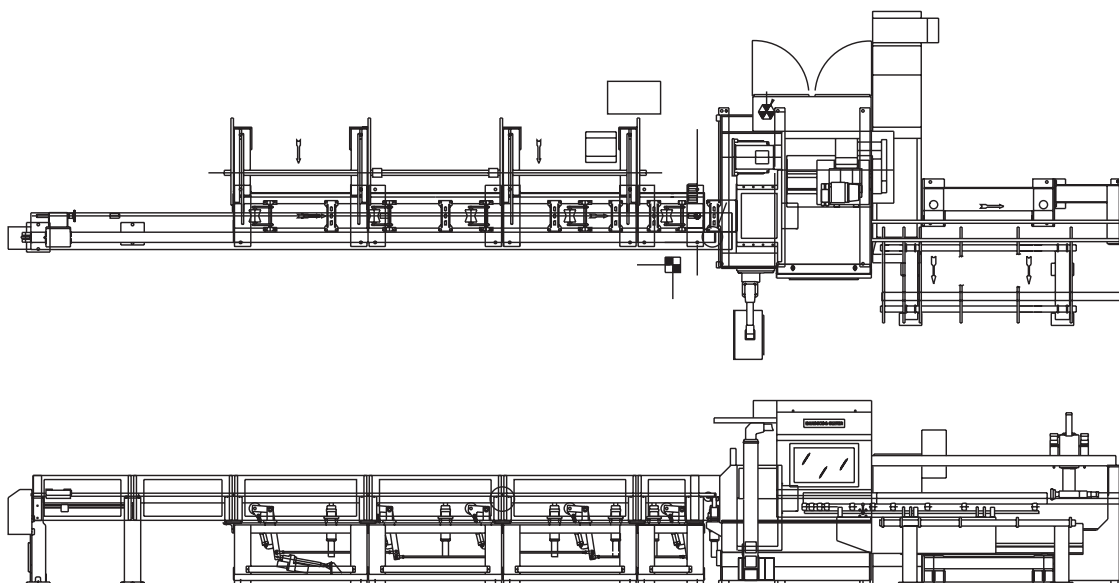


*Automatic stripper attachment with part delivery chute.*



# SPECIFICATIONS

## No. 36TBC CNC Turn/Bore/Cut-Off Lathe



### SPINDLE

Maximum collet capacity diameter . . . . .5.5" or 7.0"  
Speeds - infinitely variable . . . . .To 1300 RPM

### TURN & BORE SLIDE

X-axis stroke . . . . .9"  
Z-axis stroke . . . . .12"  
Rapid traverse rate . . . . .400 in/min.

### CUT-OFF SLIDE

Y-axis stroke . . . . .4.5"  
Rapid traverse rate . . . . .400 in/min.

### STOCK STOP

Maximum length part that can be cut with standard bar . . . . .6"  
Optional . . . . .6" to 180"

### MOTOR

AC variable speed . . . . .30 HP

### FLOOR SPACE - APPROX.

Machine . . . . .88" x 108"  
Electrical box . . . . .33" x 52"  
Transformer . . . . .18" x 27"  
Handling table standard length 22 ft. . . . .94" x 288"

### WEIGHT

Machine and electrical controls . . . . .22,000 lbs.  
Handling table for 22 ft. material . . . . .12,000 lbs.

## BARDONS & OLIVER

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For Customer Applications

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