

## RollTrack® Computerized Crown Retrofit System

A servo motor, which controls the tilt infeed of a grinding wheel head, is used for crown generation via the Grinder menu of the RollTrack® roll measuring software. The crowner is activated when the carriage is traversed by the main controls. Multiple cycles can be selected.

RollTrack® crowner software monitors the wheel position and computes the current crown height at each profile target location. RollTrack® checks the feed back gauge reading and moves servo in or out to make gauge match the location target height.

If an intermediate measurement is done on a roll, the measuring results can be applied to the crowner program to correct next grinding wheel paths by generating a new profile target. The target values can be edited manually for special shapes.

The RollTrack® crowner system can be retrofitted to a single wheel roll grinder with the computer control of a servo motor. The "Grind Roll Profile" option is added to the RollTrack® measuring program.

The RollTrack® crowner retrofit includes the following features:

- Set roll grinding parameters by the main controls (roll and wheel speeds, traverse) of the roll grinder.
- Set roll grinding cycles.
- Set crown amount, angle, and grinding length. Optional secondary crown. Optional dubbing (a separate function). Programmable end distances past the crown face at each end.
- Set continuous infeed (.xxxx" per foot of travel) as needed.
- Set end infeed (.xxxx") as needed.
- Start traversing the roll grinder carriage and the crowner system holds the grinding wheel at the target line according to the location of the carriage.
- The RollTrack® crowner system computes current crown height at each location and monitors the grinding wheel position with a feed back gauge.
- RollTrack® moves the servo in or out to make the wheelhead match the target location height.
- If an intermediate measurement is done on a roll, the measuring results from the RollTrack® measuring program can be applied directly to the crowner program to compensate the grinding wheel path accordingly.

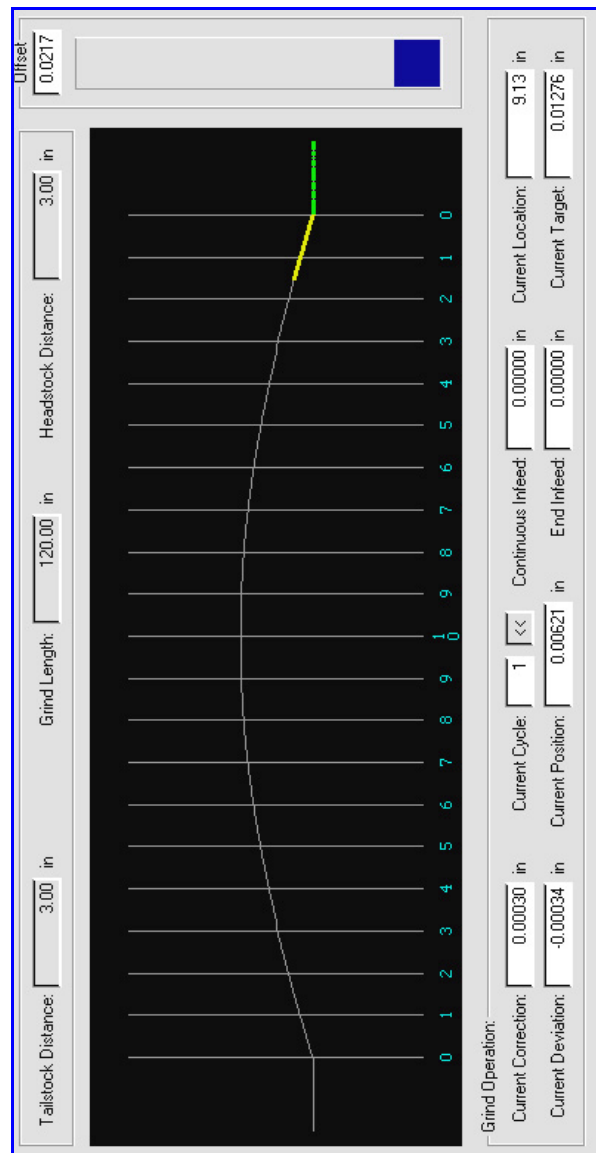


Figure 1. Screenshot of the RollTrack® crowner software. The end of the yellow line shows the position of the grinding wheel.

- Manual editing of the target line is possible for special shapes.
- Display includes offset showing still available infeed.
- Optional roll motion measurement and motion control. See a separate brochure on Motion Control.

## Hardware:

- Computer system with display
- Reference gauge for grinding wheel position
- Encoder with bracket and wheel for carriage position
- Servo Drive and Motor
- Limit switches
- Gear box as needed
- Other electrical and electronics components
- Engineering
- Wiring diagram and user manuals

## Optional Equipment and Services:

- Linear scale/encoder with display for reading and displaying the infeed position of the wheelhead, which helps to control manual infeed.
- Computer cabinet if needed.
- Machine mounted roll caliper.
- Facts finding trip, start-up assistance, on-site testing, and operator training are available by FMT.

Typically FMT is responsible for up to controlling the servo motor and gear box of the project. Customer responsibilities are mechanical interfacing, brackets and mounting plates, and mounting of the hardware unless agreed otherwise.



Figure 2. PC was placed inside an existing panel.

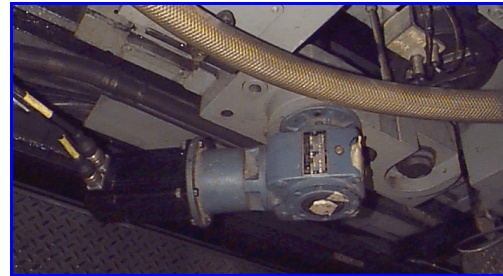


Figure 3. Servo motor and gear box which replaced the mechanical gears of a single wheel roll grinder.



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