



**Controlled Motion Dynamics Inc.**

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### Examples of Industries Served

- Centrifuge Manufacturers
- Pellet Mill Manufacturers
- Heavy Machine Manufacturers
- Irrigation Equipment Manufacturers
- Tool and Die Manufacturers
- Food Service Companies
- Medical Equipment Manufacturers
- Medical Researchers



## Case Study

### Opportunity:

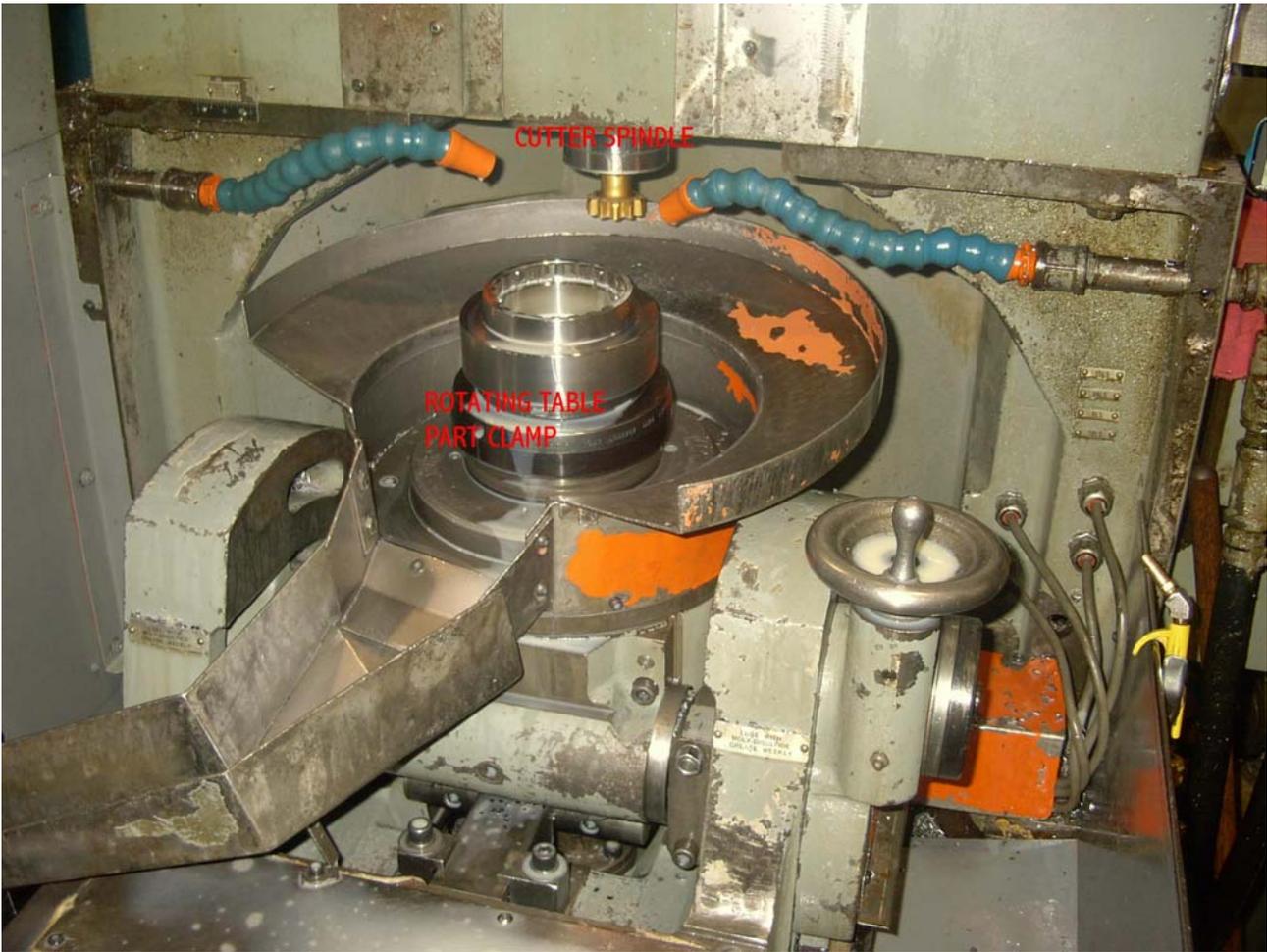
A customer that manufactures large equipment transmissions needed to update one of their machines. The machine takes a circular gear blank and cuts teeth to turn it into a finished gear. The gear blank and the cutter are rotated in order to maintain the correct tooth angle. This is accomplished with two servomotors (one controls the rotation of the tool/part and the other feeds the part into the cutter) and a 30HP motor that strokes the cutter up and down at up to 750 strokes per minute. The operator has to go through a complex set up process each time a new part number is set to run on the machine. Once set up is complete the cycle time for each part is approximately five minutes. The customer wanted to update the machine controls and motors.

Baldor came in and selected a complete Baldor control and motor package to replace the outdated controls and motors on machine. This consisted of a Mint+ drive and servomotor, a Flex drive and servomotor, a series 18H motor drive with encoder feedback with 30HP motor, and a Baldor touch screen operator interface. Once the new controls and motors were installed on the machine the customer contacted CMDI for help in programming.

### Solution:

CMDI spent time at the customer's plant, with their personnel, programming the machine to perform to the customer's specifications. The entire machine is controlled from the Mint+ drive using the workbench programming language. The operator can now set up the machine much more quickly and easily using the touch screen. The cycle time was reduced to less than 2 minutes while the quality of parts increased by a factor of ten. CMDI also spent time working with the maintenance staff reviewing the program and controls until they were comfortable with the operation.

After this machine was put into operation, the customer ordered the parts needed for the retrofit of another machine. They now have plans to outfit all of their gear shaper machines in the future.



Unfinished Blanks



Completed Part

