Controlled Motion Dynamics Inc.
PO Box 3832, Omaha, NE 68103
345 South 26th Street, Omaha, NE 68131
(402) 346-6480 (402) 422-0430
FAX: (402) 345-1567 FAX: (413) 638-3495
Toll-Free: 800-228-9750

Case Study:

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

Opportunity:
A pellet mill manufacturer with a motion problem contacted Controlled Motion Dynamics. The customer needed a new machine to replace an obsolete piece of equipment. They take sections of pipe (with diameters from twelve inches to four feet and lengths of one to four feet) and drill rows of holes lengthwise all the way around the pipe. Then they go inside the pipe and chamfer these holes, which may number in the thousands. The machines used for this process had become obsolete-- hard to program and to operate and difficult to find replacement parts. The old machines had to be manually adjusted for each pipe, a very time consuming and difficult operation. Also the machines required constant monitoring because they lacked a provision to stop when the pipe was completed; the machine would continue to chamfer holes that were already chamfered.

Solution:
Controlled Motion Dynamics proposed a solution using Tol-O-Matic components—a B3S linear actuators and drive and a GSA linear actuator and drive. A SSC2 controller was programmed to control the machine operation. A hand held operator interface was included. With this interface the operator can manually control the actuators and indexing of the machine and also program the machine with the following information:

- Number of holes drilled in pipe
- Number of rows around the pipe.
- Distance between holes in thousandths of an inch.
- Location of first hole
- Speed of chamfering operation.

Controlled Motion Dynamics wrote the SSC2 program that takes the information and uses it to control the chamfering operation, which greatly improved the speed of setup and eliminated the need for constant monitoring. When the number of rows programmed is completed the machine will stop and wait for operator input.

The customer was very pleased with CMDI's solution and subsequently ordered two more machines.