Controlled Motion Dynamics Inc.
2563 Farnam St. Omaha, NE 68131
(402) 422-0430 | (800) 228-9750

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

MEMBER OF: CSFA

Case Study

Opportunity:
A manufacturing customer who specializes in specific parts assembly was experiencing quality control issues. In particular, managing the parts available to the assembly had become a problem for this manufacturer. To solve quality concerns the customer designed a parts management system using 80/20 products. The system operated as such:

- Four bin selection towers each held eight bins
- Only the parts bins needed for the part being assembled were available
- Each tower had three air cylinders, a cable pulley system, and a Tol-O-Matic brake to raise or lower the needed bins into position
- Once in position the assembly technician could pull the needed parts from the parts' bin storage

The customer had already completed basic assembly on the bin towers but needed completion of final assembly in addition to a software package to control the towers.

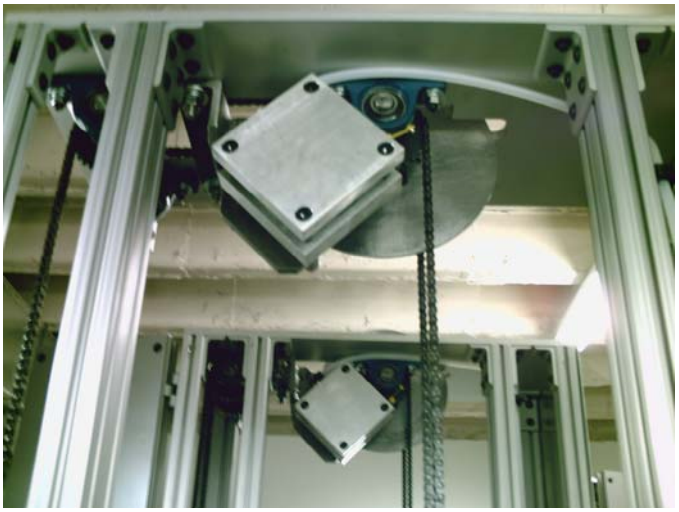
Solution:

Controlled Motion Dynamics stepped up to finalize the parts assembly system, with one of the first steps being the construction of the control panel. The control panel used a PC I/O Wago interface for the control of the tower's air valves. Controlled Motion Dynamics created a custom Visual Basic program for part selection. The system then operated to prevent incorrect part assembly:

- The parts are placed in the towers and the pattern, which is dictated by the part number of the final assembly, is entered into the Visual Basic program.
- The operator uses a barcode scanner to enter the barcode of the part being assembled.
- The towers move the bins required for that specific part's assembly into position.
- If a part stored in a tower is not needed for the current assembly then that bin's access door will not open. (continues next page)

The system is set up for controlling up to six towers, though the customer is currently using only four. Towers are labeled in the control panel in a manner that allows the towers to be moved or removed as required. The Visual Basic program will "ignore" towers that are not used in program.

The control panel system design has greatly aided this manufacturing customer's quality control. Controlled Motion Dynamics will be working on future tower designs for additional assembly benches.



Photos (clockwise from top left): Brake, side view with PC, front view with PC, air cylinders

CMD skarda EQUIPMENT COMPANY, INC.
A CERTIFIED POWER COMPANY