

Application Highlight:

Plating Plant Upgrade - Replacement of Simatic® 555 (with SIFLEKS® software) with One CTI 2500-C400 (with new OptiGalv® software) Achieves 50% Improvement in Throughput

In Hjørring, Denmark, Danish company Georg Jensen A/S operates a facility producing gold plated accessories for Easter and Christmas.



Existing Control System Design

The original design of the plant used 35 plating containers serviced by 4 cranes to move the product through the plating process. The control system was based on a Simatic® 555 with FIX32 which acted as master controllers for the process. With the old SIFLEKS® system the through was 8-10 hangers per hour.

Proposed Control System Upgrade

To allow the plant to achieve much more capacity, CTI 2500 Series™ System Integrator Manor Group Automation ApS proposed an upgrade of the 555 PLC with a single CTI 2500-C400 processor and new APT®-based control program, OptiGalv®. The upgrade also included a new iFIX HMI system and speed change from 9.6Kbaud to 19.2Kbaud on the Profibus network used to control the cranes and other I/O.

The main PLC gives orders to each crane, one instruction at a time, based on plating container status, product type, and crane availability. Because of the complexity of the calculation, it formerly took about 2 seconds to compute each move. With the 2500-C400, this time has been reduced to about 45msec.



Upgrade Result

The plant is running today with the new system, OptiGalv®, on CTI 2500-C400 PLC and iFIX. Siemens® S7-200 PLC's continue to control the internal operation of each crane, but all other I/O for pumps, valves, motors, levels, and temperatures is controlled by the CTI processor over Profibus. A test made in June 2009 shows a system performance 15-17 hangers per hour – nearly double the previous performance.



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