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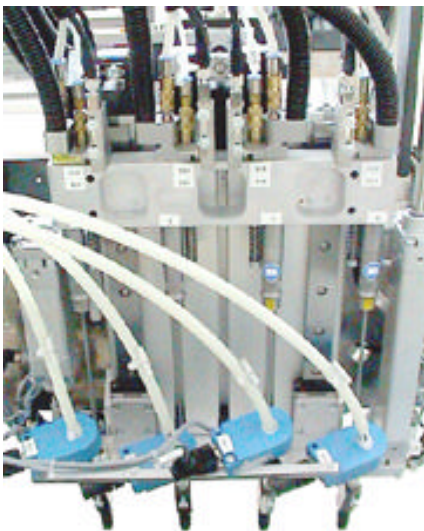
## DEPRAG MULTI-SPINDLE ASSEMBLY UNIT

During the recently held International Marketing Conference at DEPRAG Germany, this machine was one of the hi-lighted Special Machines.

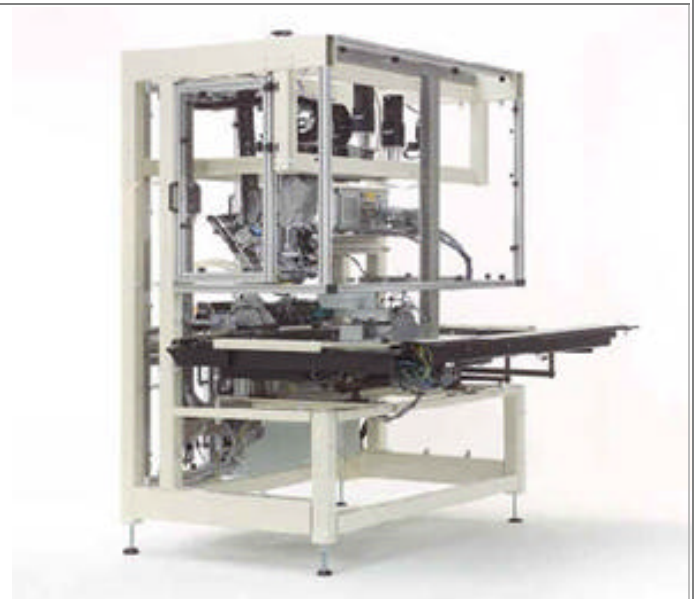
This machine was manufactured on behalf of the world's largest manufacturer of electric razors. The requirements were as follows: produce a total of 10 million razors a year in a 2 shift operation, assembling outer housings and internal components of a total of three different razors, one of the razors having two different styles.



The machine's major components consist of a 3-axis positioning system, a 4-spindle screwdriving unit that has an indexing- and swivel capability (two assembly angles: 45° and 52°), automatic screw feeding, four pallets with part fixtures (each holding four razors) and parts templates and a motion controller.



4-Spindle Screwdriving Unit with swivel capability



Total View

The major obstacles to overcome were the curved shape of the outer housings. Specially formed part fixtures and templates needed to be developed. The 2nd difficulty was the different screw access angles, which could only be solved by integrating a swivel mechanism into the screwdriving unit. One of the customer's requirements was that the DEPRAG controller should be replaceable on the spot. Therefore special Harting sockets were used on the back of the DEPRAG MC-style Motion Controller, which allows the exchange of the controller by unplugging only 4 of these sockets.

Total delivery time from design to programming and including testing was 16 weeks.

**Please click the movie icon below to watch this machine in operation.**



Since the video file is rather large, please give it some time to download!