



HARD DISK INDUSTRY

HARD DISK DRIVE MEDIA BURNISH

The Situation

The hard disk industry has successfully increased the areal densities of magnetic media by 100% each year. Critical to this pursuit is the ability to rapidly introduce new process technology and deploy it in overseas factories. One of the largest hard disk manufacturers faced such a challenge with a new backend process. Complex motion control, cleanliness, a small footprint, and highly reliable handling all needed to be delivered on an extremely tight schedule.



*Installed Equipment in Overseas Factory
A Fast Ramp from Proto to Production was Critical*

The Challenge

In addition to the design challenges, the manufacturing ramp required an overlapping prototype - production schedule. Due to the magnitude of the program, offshore manufacturing was desired to reduce costs and provide local factory support. The technology transfer of a rapidly evolving design would be critical to a successful program.

The Solution

Owens Design engineered and built the first tool in 14 weeks. A compact footprint was achieved with an innovative cassette

buffer and disk handling design. Over 20 axes of motion were integrated on networked PLCs to achieve the process requirements. As the prototype underwent process qualification, Owens Design selected an offshore manufacturer and completed the technology transfer.

Owens Design maintained program management control as the offshore manufacturer ramped and design changes were introduced. The program was highly successful resulting in a rapid increase in capacity, new HDD products and increased market share.



*Senior Manufacturing Technician
Aligning Edge Grip End Effector*