



**HARD DISK INDUSTRY**

**HARD DISK DRIVE MEDIA SCRUBBER**

**The Situation**

A major manufacturer of hard disk drive media needed to dramatically improve the performance of their cleanlines while maximizing the investment they had already made in equipment and factory layout. An approach that allowed only the problem modules to be replaced with minimal impact to the remaining system was desired.



**The Challenge**

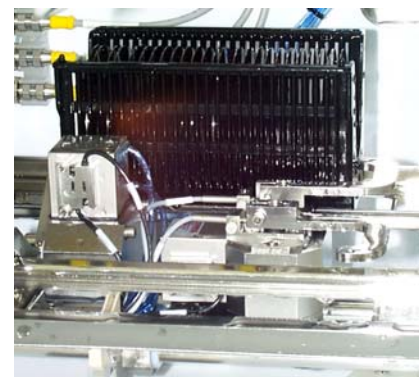
The media cleaning process demands a great deal from an automation system. The existing automation dropped disks often causing poor yields. MTBF was low due to corrosion and seal leakage problems. An entirely new approach was needed that could still be integrated to the process stations before and after the scrubbing module.

**The Solution**

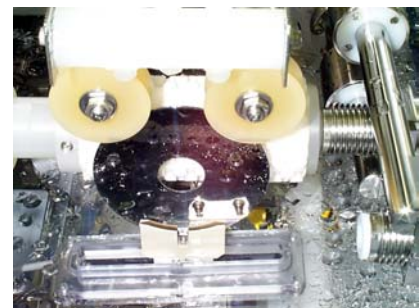
Owens Design developed an innovative media and brush drive system that dramatically improved reliability and cleanliness. A robust media handoff between the cassette and brush was implemented that improved dropped disk performance from 1:1,000 to 1:1,000,000. The unit was designed, built, and integrated into the existing cleanline in less than 20 weeks. Throughput increased by 20% due to improved higher improved motion sequencing resulting in a fast payback on investment.



*Innovative Media Drive Design  
(Outer Brush Removed for Clarity)*



*Cassette Indexing Mechanism*



*Media Drive Design (Cross Section View)*