


Vacuum Mechatronics in the ASML EUV Alpha-Demo Tool

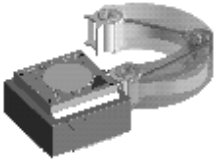
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Philips CFT Eindhoven, Mechatronics

Co-development (ASML - CFT) of mechatronic modules

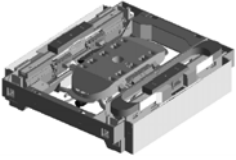
Main Chamber



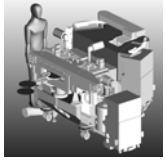
Wafer Stage



Reticle Stage

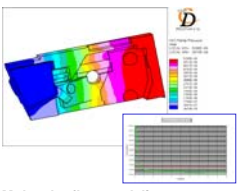


Wafer Handler




Vacuum Mechatronics: an Integral Approach

Fundamentals




- Molecular flow modeling
- Pumping strategies

Design






- Material Selection
- Design Principles
- Design for Cleanability

Analysis



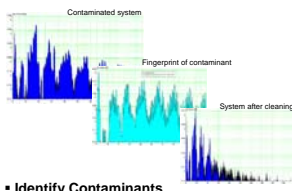
- Material outgassing
- Component outgassing
- Leak Testing
- Equipment Performance Testing

Way of Working


- Develop WoW
- Define procedures

Cleaning



- Identify Contaminants
- Cleaning Strategy Development
- Cleaning Strategy Testing


Realization



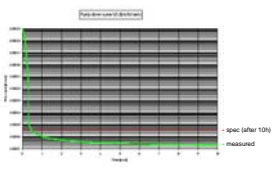
- Technology Development
- Supplier Benchmark & Selection
- Supplier Support

Results Wafer Stage

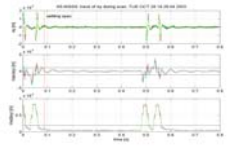
Waferstage Alpha-Demo Tool



Vacuum Pumpdown (sub-assy)



Position Control



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