



High Load Class 10 Ultran Meets Class 10 Clean Room Requirements

Challenge:

A semiconductor customer needed a high load actuator to meet class 10 clean room requirements.

Solution:

Bimba modified a High Load Ultran cylinder that eliminated contact between the carriage and cylinder body. Class 10 rated ball bushings were used to support the carriage on stainless steel guide shafts. These bushings were lubricated with a perfluorinated ether lubricant. To further eliminate particle generation, Bimba added internal shock absorbers with stroke adjustment. All components exposed to the environment were nickel plated, aluminum, or stainless steel. This custom solution was delivered in only 30 days.



Benefits:

- Meets Class 10 clean room requirements.
- Supports high side and moment loads.

Other Applications:

- Opening/Closing Doors
- Silk Screens
- Moving Blades for Cutting
- Feeding

