

Parker Precision Linear Mechanics: Cleanroom Capability

Cleanroom performance is important for applications such as life science testing, semiconductor, inspection, and electronics manufacturing. With its expertise in designing products for cleanrooms, Parker's various precision linear positioners are ideal for these applications. Both standard and precision grade versions can be prepared to meet a variety of cleanroom levels. Cleanroom performance depends upon a number of variables in an application, including:

- Absence or presence of laminar airflow over the stage
- Payload mass attached to stage
- Motion profile (acceleration, speed, etc...)
- Stage orientation
- Point of interest relative to the stage

Parker is capable of validating stage cleanroom classification according to either Federal Standard 209E or ISO standard 14644-1 with an onsite cleanroom test chamber, and has years of experience adapting stages to meeting a variety of classifications. Typical stage alterations might include cleanroom compatible lubricants or cable managements systems.

All Parker precision or standard grade stages for use in a cleanroom, whether as a single axes unit or in an XY configuration, must pass testing before it is released customer. Please contact us to discuss your application needs and testing requirements with our application engineer team.

Electroless Nickel Option

For electrically sensitive applications in semiconductor processing and inspection or electronics manufacturing, Parker's linear mechanics can be given an electroless nickel coat and conductive lubricant. This allows for a conductive path to ground for constant electric discharge, lowering the risk of damaging sensitive electronics or devices.

*Airborne Particulate
Cleanliness Class Comparison*

ISO 14644-1	FED STD 209E	
ISO Class	English	Metric
3	1	M1.5
4	10	M2.5
5	100	M3.5
6	1,000	M4.5
7	10,000	M5.5
8	100,000	M6.5



THIS IS CLEANROOM READY



ENGINEERING YOUR SUCCESS.