FAQ FOR FG-HVG CLEANROOM PRESET TORQUE SCREWDRIVERS

Q1: What fastening applications are preset screwdrivers used in?

A1: Preset torque screwdrivers are ideal for production applications where consistent torque is critical. They are commonly used in assembly lines, electronics manufacturing, and other precision fastening tasks where operators must consistently apply the same torque setting for each part. Preset torque screwdrivers offer greater consistency and repeatability, reducing the risk of operator error.

Q2: Does the FG screwdriver have an external torque scale or adjustment mechanism?

A2: No, FG preset screwdrivers do not have an external torque adjustment scale. They feature an internal torque adjustment mechanism that requires a hex key and a torque analyzer to set the torque value.

Q3. How do you set the torque for the preset screwdriver?

A3. The torque can be set using a torque analyzer, or customers can order the screwdriver pre-calibrated to their specified torque value. View manual.

Q4. Can the preset torque value be changed for a new fastening application?

A4. Yes, the preset torque value can be adjusted internally. Customers can either use a torque analyzer to recalibrate the screwdriver or send it to a calibration lab for adjustment.

Q5. What is the ISO standard for re-calibrating hand screwdrivers?

A5. ISO 6789-1:2017 standard recommends recalibration after a maximum of 5,000 cycles.

Q6. How often does the FG need to be recalibrated?

A6. The FG-8i, FG-20i, FG-40i, and FG-125i models feature a calibration life that is 4x the ISO standards, needing recalibration approximately every 20,000 cycles. The FG-25z and FG-50z models meet the ISO standards and require recalibration after 5,000 cycles.

Q7. What is Ultra-High Vacuum Grease (HVG)?

A7. It is a specialized lubricant with an exceptionally low vapor pressure, designed specifically for use in ultra-high vacuum environments.

Q8. What distinguishes the Mountz Ultra-High Vacuum Grease (HVG)?

A8. The Mountz specified HVG exhibits favorable vapor pressure characteristics and serves as an effective lubricant for torque tools. In contrast, many commercially available Ultra-High Vacuum Greases do not perform well when used as lubricants in torque tool applications.

Q9. Why does the FG-HVG models cost more?

A9. While HVG comes with a higher upfront cost, its unique formulation makes it a valuable investment for industries where cleanliness and precision are paramount, such as cleanroom environments.

Ultra-High Vacuum Grease (HVG) is crafted from specialized formulations that include premium ingredients. The grease undergoes manufacturing under stringent process controls, ensuring superior quality that aligns with the demands of cleanroom environments.

Q10. Why might FG-HVG screwdriver be suitable for an application?

A10. While Ultra-High Vacuum Grease (HVG) comes with a higher cost and demands special cleaning materials, it becomes essential for customers particularly sensitive to Volatile Organic Compounds (VOCs) emitted by the grease. The Mountz HVG does not directly enhance the performance of the cleanroom tools, nor does it surpass other lubricants in cleanliness, except for VOC emissions. However, for specific demanding applications, such as certain optics and semiconductor processes, its usage is indispensable.

Q11. Does this grease comply with US-EPA PFAS (Per- and Polyfluoroalkyl Substances) requirements?

A11. Currently, we do not offer a PFAS-free option cleanroom grease.

Q12. Why might a company opt against using Mountz FG-HVG screwdriver?

A12. This grease demands specific solvents for cleaning, potentially making the cleaning process more challenging compared to conventional lubricants. Customers should be aware that using Mountz UHV Grease might lead to reduced service intervals and calibration life compared to other lubricants.

Q13. How do FG cleanroom screwdrivers prevent grease leakage and contamination?

A13. FG cleanroom screwdrivers feature dynamic wear-resistant internal seals to effectively prevent grease leakage and the infiltration of contaminants into sensitive areas or components. All cleanroom screwdrivers are supplied with a polyurethane sleeve to provide extra protection.

Q14. Are there any maintenance tips for extending the life of the FG screwdriver?

A14. Regular maintenance can extend the life of your FG screwdriver. Avoid exposure to harsh environments and recalibrate as recommended.

Q15. Can FG screwdrivers be used in environments other than cleanrooms?

A15. Yes, while FG screwdrivers are designed for cleanroom use, they can also be used in other environments where precision and cleanliness are required.

Q16. What is the recommended cleaning procedure for FG cleanroom screwdrivers, and what substances can be used for cleaning?

A16. FG cleanroom screwdrivers are designed to withstand frequent wiping and are ideal for advanced cleansing regimens with water and alcohol-based solvents. However, please note that these tools are not designed to be submerged. Acetone and other strong solvents must be avoided as they can cause damage to the finish.

Q17. How do I know if my FG screwdriver needs recalibration?

A17. Signs that recalibration is needed include inconsistent torque application, the tool failing to click at the set torque, or after completing the recommended cycle limit. Regular checks with a torque analyzer can help determine if recalibration is necessary.

Q18. Can FG screwdrivers be customized for specific applications?

A18. Yes, FG screwdrivers can be customized to meet specific application requirements, including preset torque values, handle engraving, special bits and end configurations, and more. Contact our customer service for customization options.

Q19. Do you provide formal cleanroom certification?

A19. We do not currently provide a formal cleanroom certification. However, our cleanroom screwdrivers are specifically designed to meet the demanding requirements of ISO 5 / Class 100 environments.

Q20. What makes the FG screwdrivers suitable for cleanroom use?

A20. Mountz engineered these tools to minimize contamination risk and operate safely in highly controlled spaces. Key features include:

- **Contamination-Resistant Design**: A high-grade, low outgassing powder coat reduces vapor emissions and particulate shedding.
- **Leak-Free Operation**: Wear-resistant internal seals form a double barrier that prevents grease leakage during use.
- **Encapsulated Construction**: A polyurethane sleeve encloses the tool body to contain any wear particles.
- **Cleaning Compatibility**: Materials withstand frequent cleaning with alcohol and water-based solvents.
- **Performance Retention**: Tools maintain the same accuracy, repeatability, and error-proofing features as standard Mountz FG and FGA tools.
- **Optional Ultra-High Vacuum Grease**: Available for VOC-sensitive applications requiring very low vapor pressure.

Q21. Can the FG screwdrivers be used in my specific cleanroom?

A21. Cleanroom compatibility must be validated on a case-by-case basis. We have successfully supported customers in qualifying our tools for use in restricted, highly controlled environments.

Q22. What information do you need to determine if your tools are a fit for our cleanroom?

A22. To help assess compatibility, we recommend sharing the following:

- Cleaning requirements and frequency
- Solvents or sterilization methods used
- Whether autoclaving or other high-temperature processes are involved

With this information, we can better evaluate fit and support your compliance needs.

Differences Between Standard Polyurea Grease and Ultra-High Vacuum Grease

While Mountz Cleanroom tools are designed to confine grease, there remains a minor chance of grease vapors escaping through the seals when conventional grease is utilized. For highly sensitive applications in Ultra-High Vacuum and Optics fields, we provide a specialized grease characterized by remarkably low vapor pressure and sustained lubrication performance.

The Mountz Cleanroom FG screwdrivers feature a polyurea Grease, which is utilized in all FG standard models. However, customers have the option to upgrade to a High-Vacuum PFPE Grease for an additional cost.

The Ultra-High Vacuum Grease is crafted using advanced polytetrafluoroethylene (PTFE). It's characterized by ultra-low outgassing, vast temperature suitability, and superb lubrication. Being chemically inert, non-toxic, and nonflammable, it stands out as an ideal choice for diverse chemical interactions.

	Standard Polyurea Grease	Ultra-High Vacuum Grease
Color	Blue Green	Translucent White
Operating Temperature	-40°C to +276°C	-20°C to +325°C
Best Used	For applications where the external elements in the field cannot always be controlled, such as a high temperature spike or extreme weather conditions.	For highly sensitive applications in ultra-high vacuum.
Features	• Waterproof • Long operating life • Contains no metals • Inhibits rust and oxidation • Added resistance to extreme pressure • Performs well in harsh environments • Improved performance over time	• Ultra-low outgassing for optimal vacuum performance • Consistent lubrication across extreme temperatures • Superior chemical resistance in diverse environments • Anti-wear properties for extended bearing life
Performance	Tools with standard grease have 4xISO compliance with a Calibration interval of 20K cycles, except the FG-25z and FG-50z models which meet ISO standards.	Tools with HVG have reduced recommended Calibration (5k) and Service (50k) intervals compared to the standard grease FG tools.
Compatible Cleaning Solvents	Organic cleaning solvents compatible with Nitrile. Mountz recommends Isopropyl Alcohol.	Fluorinated solvent cleaners such as: • MS-250M PFPE Re-move • Castrol Brayco IC X-100 • TorrLube Solvent TS-86 • TMC-HFE-367E