



O-RINGS 101: Protecting Your Data

Types of O-Ring Failure



INSTALLATION DAMAGE

Signs To Look For:

Small nicks, cuts, and gashes in the O-Ring

How To Prevent This:

Install the new O-Ring carefully, per instructions below. In service, lubricate the O-Ring properly to prevent pinching and shearing.



THERMAL DEGRADATION

Signs To Look For:

Radial cracking, deformation

How To Prevent This:

This is not common. Therefore, it should be assumed the logger has been used outside of its specified operating range. Please verify the operating environment before continuing to use the logger.



COMPRESSION SET

Signs To Look For:

A flattened cross-section relative to the sealing surfaces.

How To Prevent This:

Review the application in terms of temperature and chemical exposure. The temperature specification of the logger may have been exceeded, or a chemical present in the process might have hardened the O-Ring.



OUTGASSING

Signs To Look For:

Reduction in cross-section (can be hard to detect visually)

How To Prevent This:

This is common in high vacuum applications. Contact MadgeTech to discuss a solution for your application. (It might be as simple as not using an O-Ring at all!)



CHEMICAL DEGRADATION

Signs To Look For:

Hardening, blistering, cracking, discoloration

How To Prevent This:

Investigate the environment in which the logger is used to see what chemicals are present. Contact MadgeTech for a chemically compatible O-Ring, specific to the application.



SPIRAL FAILURE

Signs To Look For:

Cuts or marks spiraling around the circumference

How To Prevent This:

Install the new O-Ring carefully per the enclosed instructions. In service, lubricate the O-Ring regularly to prevent twisting

○ 形圈维护的注意事项

MadgeTech 数据记录仪直接从工厂出厂，配备高品质 ○ 形圈，

已正确安装。作为用户，您只需要做几件事

请记住保持 ○ 形圈密封功能正常。

做：

- 经常清洁它们（使用压缩空气或软刷以避免磨损）。
- 定期润滑（如果感觉不滑，则需要润滑）。我们推荐 Parker® Super-O-Lube，但任何基于硅酮的 ○ 形圈润滑剂都可以使用。这对于密封件来说是最重要的经常打开和关闭以与记录器通信。

• 定期检查 ○ 形圈是否有故障迹象（有关如何处理的详细信息，请参阅本手册的反面寻找）。

不：

- 用锋利或尖锐的物体戳、刺、撬 ○ 形圈。
- 将 ○ 形圈暴露于刺激性化学品中（如有疑问，请致电 MadgeTech）。
- 将密封件暴露在高压下（我们所有的潜水式数据记录仪的额定压力为 60PSIG）。
- 将密封件暴露在高温下（有关工作温度范围，请参阅数据记录器）。

正确更换 ○ 形圈

- 拧下零件以露出 ○ 形圈。
- 使用小尖头工具（刀或尖头针）将旧 ○ 形圈从凹槽中撬出。
- 确保 ○ 形圈凹槽没有任何污垢或碎屑。
- 将配合部件部分拧回到一起，使 ○ 形圈凹槽暴露。
- 在 ○ 形圈上涂上一层薄薄的润滑剂。
- 将 ○ 形圈拉过盖子并伸入其凹槽中。避免拉伸 ○ 形圈

超过线程！锋利的螺纹会割断您的新 ○ 形圈！

本指南不适用于本质安全产品