



Planned Maintenance vs Operational Qualification

What the difference is and why Operational Qualification matters

Planned Maintenance (PM) and Operational Qualification (OQ) serve **different purposes** within our instrument lifecycle management. PM is carried out at predetermined intervals to ensure that the instrument is operating according to manufacturer's specifications and is in safe working condition throughout its intended lifetime. OQ is the verification that the instrument, as installed or modified, performs as intended throughout the defined operating ranges. OQ is typically performed before the instrument's first use and after relevant modifications.

Key concept

PM keeps the instrument running, and OQ proves the instrument is running correctly.

For regulated environments or critical workflows, the **OQ delivers compliance, confidence in data and regulatory protection beyond the required PM.**

Planned Maintenance	Operational Qualification
Ensures the instrument remains functional	Verifies correct operational performance with formal qualification
Focuses on hardware upkeep and worn items	Focuses on functional, operational and performance verification
Ensures instrument remains operational	Ensures instrument performs as intended within specifications and detects data drift
Typically recurs (annual)	Performed at installation, after major changes, relocation, PM or at requalification intervals
Documented in a basic service report	Generates documented, auditable compliance records
Service-focused	Focused on quality and compliance

The value of OQ

Compliance and audit readiness • Provides documented evidence required by regulatory and quality standards • Supports GMP, GLP and quality system expectations • Reduces audit risk by demonstrating controlled, verified operation	Data integrity and confidence • Ensures results are generated from a verified, qualified system • Builds confidence in analytical outcomes and decision-making • Supports defensible data in regulated environments
Risk reduction • Identifies functional issues before they impact results or workflows • Reduces the risk of invalid data, rework or investigation findings • Protects labs from hidden performance drift not detected by PM	Change and lifecycle control • Required after major repairs, upgrades, relocations or software changes • Provides assurance that system changes did not impact performance • Supports long-term lifecycle management of critical instruments



For more information about our service agreements and professional services, visit www.qiagen.com/instrument-services

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit instructions for use or user manual. QIAGEN instructions for use and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services (or your local distributor). Not all services are available in all countries.

Trademarks: QIAGEN®, Sample to Insight® (QIAGEN Group). Registered names, trademarks, etc. used in this document, even when not specifically marked as such, may still be protected by law.

QPRO17513 07/2026 © 2026 QIAGEN, all rights reserved.