

Achieve optimal seals when crimping caps on vials - How To

How to Achieve Optimal Seals When Crimping Caps on Vials

Proper crimping is essential to ensure a secure, airtight seal on serum finish vials. An improperly crimped cap can lead to compromised sample integrity, contamination, or leakage. Follow the steps below to achieve consistent, high-quality seals every time.

Key Considerations for Effective Crimping

1. Use a Calibrated Crimping Tool

- Ensure your crimping tool is properly calibrated.
- The **crimper chuck** should be adjusted approximately **every 50 crimps** using the adjustment tool provided by the manufacturer.

2. Inspect the Seal After Each Crimp

- **Check for rotation:** The cap should not spin freely on the vial. A spinning cap indicates an inadequate seal.
- **Examine the septa:** The septum should remain flat. Avoid dimpling or concave deformation, which may affect sample access and integrity.
- **Verify the crimp edge:** The aluminum cap should be **evenly bent under the vial's neck** (serum finish) to ensure a uniform seal.

Best Practices

- Perform regular maintenance and cleaning of your crimping tool.
- Practice on test vials when adjusting the crimper to avoid wasting sample containers.
- Document calibration intervals and inspection results as part of your lab's quality assurance process.

