Dental Implant Fatigue Specimen Holder

Built to ISO 14801 — Dentistry — Implants — Dynamic loading test for endosseous dental implants



OVERVIEW

Angle-adjustable specimen holder for dynamic fatigue testing of endosseous dental implants. The implant is clamped in a collet block that rotates on a graduated arc, setting the off-axis loading angle, while a hemispherical loading cap on the abutment receives the cyclic load from the machine actuator.

KEY FEATURES

- Graduated arc sets and locks the implant angle to the loading axis
- Clamping block holds the embedded implant at the specified level
- Loading cap provides a hemispherical contact on the abutment
- Stainless steel construction suits testing in saline at 37 °C
- Supplied with adapters to suit your load frame (clevis or threaded)

TECHNICAL SPECIFICATIONS

Test method	Dynamic fatigue of dental implants per ISO 14801
Test type / loading	Cyclic compression at an off-axis angle
Specimens	Implant with abutment, embedded per ISO 14801
Load capacity	2 kN dynamic standard; higher capacities on request
Fixture material	Stainless steel, corrosion-resistant
Angle adjustment	Graduated arc, locking at the required angle
Machine connection	Pin or threaded adapter, to suit customer frame
Compatible frames	Electrodynamic and servo-hydraulic fatigue test machines

APPLICATIONS

- Endosseous dental implant systems
- Abutments and prosthetic components
- Regulatory submission testing
- Implant design development

ABOUT THE STANDARD

ISO 14801 specifies a dynamic loading test for single endosseous dental implants of the transmucosal type and their premanufactured prosthetic components. The implant assembly is clamped at a defined angle to the load axis and cyclically loaded through a hemispherical member. Results are presented as a load–cycle diagram and the maximum load sustained to the run-out cycle count.

Ordering & customization: Specify implant diameter and embedding method, loading angle, test medium, dynamic capacity and machine connection when ordering.

Specifications are typical and may vary by configuration; confirm at time of quote. Users should refer to the current edition of the standard for test procedures. Part ref. UGC-ISO14801-TC