measure

Universal Stamper Checker

- First system to standardize the measurement of mechanical parameters of optical disc stampers
  - •Stamper thickness and thickness variation
  - •Surface roughness of rear side
  - •Stamper surface scan on both sides
  - •Stamper deformation (radial and tangential)
  - •Stamper barcodes display
- Unique combination of both roughness and thickness checkers in one unit
- Universal stamper checker for all optical disc stamper formats (including; all types CD, DVD and BD)
- Non-contact Laser-based measurement system.
- User-friendly operator interface DaTAVIEW™ based software
- Adaptors available for all stamper hole sizes
- Internal automated calibration for thickness, roughness and deformation (customised calibration possible with stamper and glass disc)
- Fast analysis (less than 5 minutes for complete surface analysis)
- Surface visualization

Universal Stamper Checker

The Universal Stamper Checker is a response to demands from the optical media industry. There is a clear need for a system that can measure both stamper thickness and roughness. The DaTARIUS Universal Stamper Checker achieves this and is specifically designed to provide an easy to use device to check stamper quality.

Stamper checking becomes a 'One Stop' procedure that ensures a very high level of quality control without operator influence.

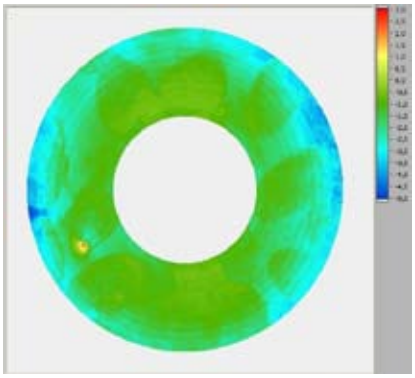
Designed in co-operation between DaTARIUS and technotrans,the Universal Stamper Checker provides an innovative solution based on both the proven DaTARIUS measurement technology and the stamper production experience of technotrans. The Universal Stamper Checker is available in two versions consisting of a Standalone system or as an add-on to any DaTARIUS DaTAVIEW™ based system to complement the full range of DaTARIUS Analyzers.

Internal automatic calibration ensures that the Universal Stamper Checker provides consistent results each time.

DaTARIUS
the quality people

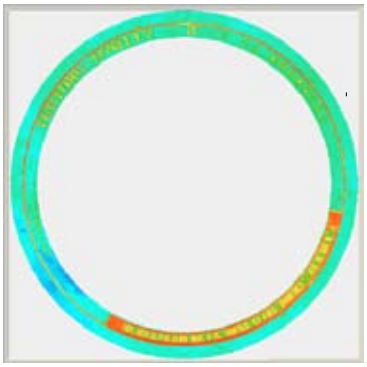
Stamper thickness and roughness

Stamper thickness plays an important role in the replication process. Both jitter and tilt of the replicated disc are influenced by the stamper thickness. For DVD, and more importantly for the new format discs such as BD (Blu-ray Disc) this is of critical importance. Additionally, the thickness of a stamper provides a good indication as to the degree of wear. Surface roughness can increase the radial noise and jitter values. The rougher the stamper, the higher the values and the worse a replica will be.

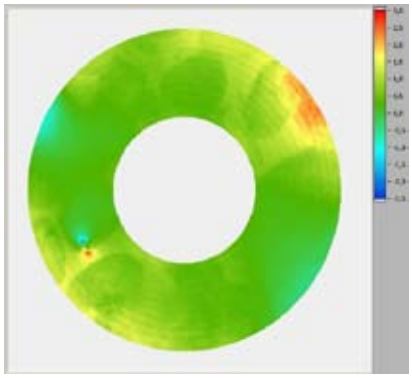


Tangential Deformation: surface presentation

Barcode area scan close-up



Barcode area scan from underneath



Radial Deformation: surface presentation

DaTAVIEW™ Software Platform:

Features

- High resolution 12Bit Digital Data Acquisition
- Multiple limits per signal
- Full networking integration (intranet, internet, modem) for configuration, servicing, data collection and auditing
- Enhanced database integration
- Results available live via network
- Enhanced graphics

Stamper size

The USC measures stampers with an outer radius of 140 mm and two alternate inner radius values. As standard these are set to 22 mm and 34 mm. The USC can be customised for other values.

Recommended Operating Environment:

20 – 24°C, 1°C variability for good reproducibility
40% - 60% relative humidity, non-condensing

Measurement specification

Stamper thickness:

Measurement range	250 - 350 µm
Resolution	0.1 µm
Accuracy	1.0 µm

Surface roughness (averaging method):

Measurement range	0.01 - 0.5 µm
Resolution	0.001 µm
Accuracy	0.01 µm
Laser spot size	0.2 mm

Power Supply:

AC 100V - 240V, 50/60Hz

Hardware:

Rack Mounted 19” 3HE
Chassis: 48.3 x 13.2 x 65.5 cm
Weight 13.00kg

Specifications may change without notice

DaTARIUS
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