

PRODUCT

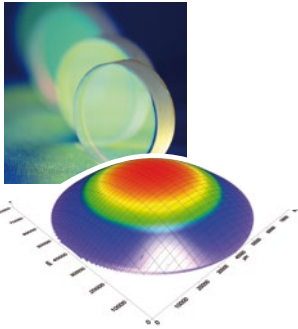
cyberScan

CT 350S

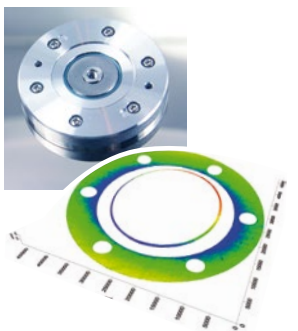
- HIGH-END 3D SURFACE MEASUREMENT SYSTEM
- LARGE 350 MM X 350 MM SCANNING AREA
- USER FRIENDLY CONCEPT
- SOPHISTICATED ANALYSIS AND AUTOMATION SOFTWARE



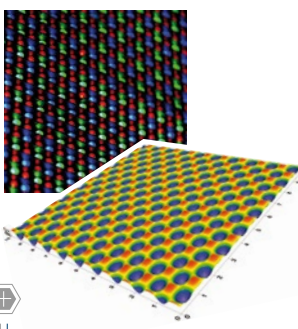
Surface of an asphere



Flatness of a hard disk component



Topography of LED devices



OVERVIEW

The CT 350S is a non-contact profilometer with a 350 mm x-, y-scanning stage and a closed loop 200 mm z-axis. All three axes use air bearings and magnetic linear motors. The system is based on a massive granite construction with a vibration isolated floor stand.

The system offers exceptional performance with a flatness deviation less than 70 nm.

During the scanning process the z-axis can follow the shape of the part. The height reading is a combination of the calibrated z encoder signal and the sensor height. This allows the system to achieve a very high resolution in the vertical z-direction over the entire z-axis range of 200 mm.

In combination with the fast chromatic sensors the inspection time is minimized. The sensors are available with a z-resolution down to 3 nm. With our Multi-sensor Technology, several sensor heads can be mounted simultaneously.

APPLICATIONS

The CT 350S was originally designed for measuring precision optic components. Other popular applications are contour measurements, step height, roughness and other 2D and 3D analyses, geometry and position measurement of other highly contoured objects like, gaskets, turbine blades, as well as flatness and coplanarity analysis. The CT 350S offers high accuracy across the entire travel and exceptional z accuracy at a measurement range of 200 mm. Larger parts such as optical components, aspheric lenses, machined parts or gaskets are inspected fast and precisely.

- Lenses, aspheric lenses and other optical components
- Gaskets and large mechanical parts
- Printed products, systems or devices
- Device packaging
- Fuel cell elements
- Medical devices

SOFTWARE

The proprietary cyberTECHNOLOGIES, Windows based software package SCAN SUITE combines system control, data collection and data analysis in a user friendly interface. Comprehensive profile, 3D and roughness analyses conforming to DIN ISO are included. The software can handle up to 10.000 x 10.000 data points in one scan.

An outstanding feature is the ASCAN Software:

- Automation of measurement routines
- Easy programming using tasks and templates
- Offset and fiducial correction
- Built-in SPC Charts with reporting function
- Flexible, user defined data output format
- Barcode or user field input
- Step & Repeat function

TECHNOLOGY

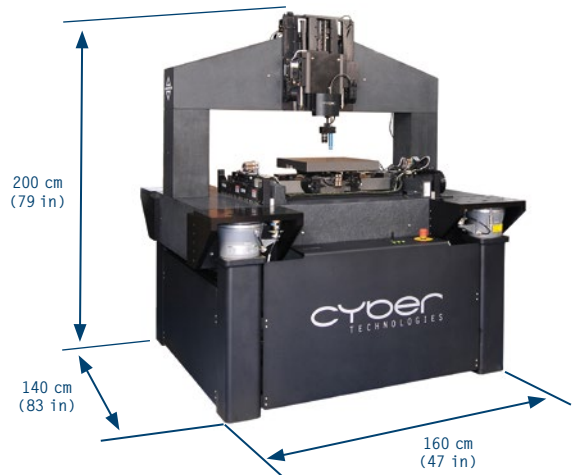
- Fast and accurate scanning system with air bearings in x-, y- and z-direction
- Measurement speed: 4 kHz (14 kHz optional)
- 350 mm travel in x- and y-direction, lateral resolution 1 nm, optional motorized z-axis resolution 1 nm
- 2D profiles and 3D topographical maps
- Large scanning area, up to the maximum travel of 350 mm at maximum x-, y-, z-resolution
- Chromatic white light sensors
- Resolution down to 3 nm
- High resolution off-axis camera
- Collision protection system

SYSTEM INCLUDES

- CT 350S base unit with motorized x-, y- and z-axis
- One sensor of choice (see sensor specifications)
- System control console
- Joy-Stick Control
- PC Workstation (current version)
- Factory installed Windows XP and cyberTECHNOLOGIES SCAN SUITE license
- 22" widescreen monitor, keyboard, mouse
- Reference manuals and user guides

OPTIONS

- ASCAN Software for automation of measurement tasks and analyses, 2D and 3D, Step & Repeat
- High speed sensor and controller (14 kHz)
- Additional sensors
- Square shaped optical flat for flatness calibration
- Traceable calibration tools and certification targets



SPECIFICATIONS

DIMENSIONS (L X W X H)

1600 x 1400 x 2000 [mm] System
(63 x 55 x 79 [in])

600 x 800 x 2000 [mm] Control Console
(24 x 32 x 79 [in])

WEIGHT

2500 kg (5500 lbs)

SYSTEM CONTROLLER

Includes Motion Control,
Sensor Controller (4 kHz), Power Supplies,
USB Interface to Workstation

WORKSTATION PC

Inquire about current specification,
22" widescreen monitor

CONNECTIONS

Ethernet, DVD Drive, USB (front and back side),
Parallel Port, Keyboard, Mouse, DVI and Analog
Video Output

POWER REQUIREMENTS

100-240 V AC, 50-60 Hz, 2.0 amps (240 V), 5 amps (100V)

OPERATING TEMPERATURE

20°C (68F)

MEASUREMENT SURFACE SIZE

400 x 400 [mm] (16 x 16 [in])

LINEAR ENCODER RESOLUTION

1 nm (0.04 µin)

MINIMUM LATERAL RESOLUTION

1 micron

TRAVEL LIMITS IN X AND Y (MOTORIZED)

350 x 350 [mm] (13.8 x 13.8 [in])

TRAVEL LIMIT IN Z (MOTORIZED)

200 mm (8 in), 1 nm (0.04 µin) resolution

MAXIMUM LOAD ON PLATFORM

10 kg

AVAILABLE SENSORS

Confocal White Light Sensors