XONOX

METROLOGY FOR OPTICS REDEFINED

THE XONOX PRODUCT PORTFOLIO 2023

A FULL SOLUTION OF SYSTEMS AND SOFTWARE FOR OPTICS TESTING IN MANUFACTURING AND QC

1

INTERFEROMETERS SYSTEMS

TURNKEY SOLUTIONS

_ALL COMPONENTS FROM ONE SINGLE MANUFACTURER
_INTERFEROMETERS - REFERENCE OPTICS - SOFTWARE - WORKSTATIONS
_PERFECTLY MATCHED TO APPLICATION ORIENTED, USER FRIENDLY TURNKEY SYSTEMS

2

MEASUREMENT SYSTEMS

SELECTION OF COMPUTER CONTROLLED MEASURING DEVICES

_VERIFICATION OF ALL DIMENSIONS ON OPTICAL COMPONENTS
_ALL POWERED BY THE EASY-TO-USE X-APP SOFTWARE

3

JOB MANAGEMENT SOFTWARE

SOFTWARE TOOLS FOR JOB HANDLING AND RESULT DOCUMENTATION

_JOB PLANNING SOFTWARE FOR MANAGING PRODUCTION BATCHES
_SETUP OF ALL XONOX INSTRUMENTS JUST BY READING SOFTWARE GENERATED QR-CODE
_AUTOMATICALLY GENERATED COMPREHENSIVE QC DOCUMENTATION

4

XONOX “IQC” SYSTEM

METROLOGY NETWORK FOR THE ENTIRE QC

_CONNECTION OF ALL MEASUREMENT DEVICES AND INTERFEROMETERS
_TRANSFER OF ALL JOB DATA AND PART SPECIFICATIONS TO THE MEASUREMENT DEVICE
_RE-TRANSFER OF ALL MEASUREMENTS IN REAL-TIME INTO THE JOB DATABASE

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INTERFEROMETER SYSTEMS

1 COMPREHENSIVE INTERFEROMETER BASED SOLUTIONS

_FIZEAU INTERFEROMETERS-REFERENCE OPTICS-ANALYSIS SOFTWARE-WORKSTATIONS – ALL FROM A SINGLE SOURCE

EVERY SINGLE COMPONENT 100% DESIGNED - MANUFACTURED - PERFECTLY MATCHED

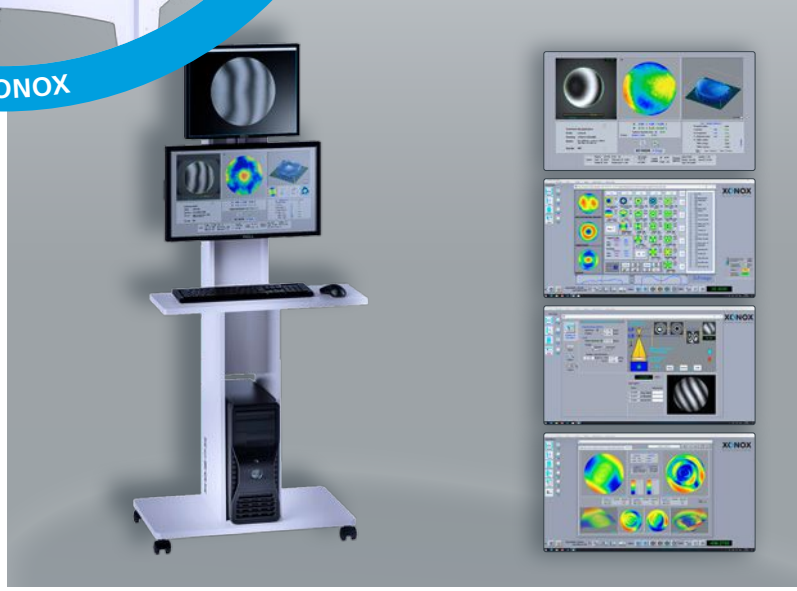
BY **XONOX**

FIZEAU INTERFEROMETER
IN 4"& 6" SIZES AND VARIOUS VERSIONS

TRANSMISSION SPHERES
HIGH QUALITY WITH EXPANDED APERTURE

HIGH PRECISION WORKSTATIONS
IN HORIZONTAL AND VERTICAL CONFIGURATIONS

FRINGE ANALYSIS SOFTWARE
FOR ANALYSIS, CALCULATION AND DOCUMENTATION



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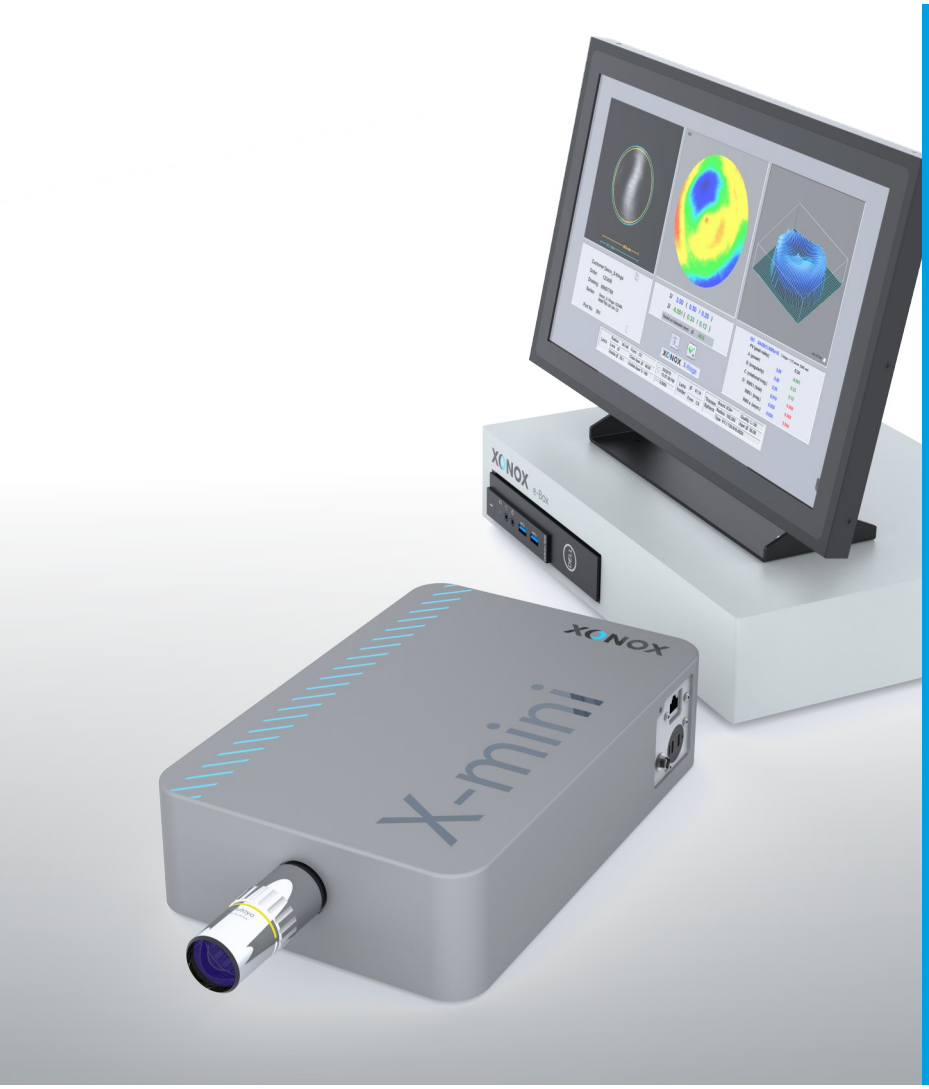
X-mini



COMPACT
TWYMAN-GREEN INTERFEROMETER

_small aperture, phase shifting, Twyman-Green interferometer

_20mm aperture supports use of industry standard long working distance microscope objectives for testing spherical surfaces or creating spherical wavefronts

_dedicated alignment camera provides real-time feedback while allowing simultaneous viewing of fringe view

_adaptable for measurement of highly reflective surfaces or systems

_motorized pupil focus accommodation, adjusted through software

_XONOX **X-fringe2** software, fully featured and equipped with dedicated modes for production environments to streamline use

_XONOX **X-fringe2** includes features to allow reference subtraction to be easily accomplished, to remove wavefront error contribution of accessory optics

_compact XONOX **"e-box"** houses standard Windows PC, motor controller, phaseshifter driver and support electronics

_available with optional kinematic, quick connect, mounting system to facilitate repeatable positioning of unit in multiple setups

INTERFEROMETER	XONOX X-mini Twyman-Green, 633nm, phase shifting interferometer with adjustable pupil focus
IMAGING	_Main Camera: 5MP CMOS, 12 bit dynamic range _Alignment Camera: 1.6 MP CMOS
OBJECTIVE MOUNT	Mounting Threads: M26 x 36 TPI
CONNECTIONS	110-240 V / 50-60 Hz
COMPUTER/SOFTWARE	Dell PC, 17" touch screen, 10" live image screen (option) WIN10 64 bit, X-fringe PS2
DIMENSIONS	_**X-mini:** 300 x 200 x 76 mm (without mounting system) _**e-box:** 390 x 300 x 90 mm (without monitor)
COLOR	Perl-light-grey RAL 9022 and light-grey RAL 7035

Specifications subject to change without notice

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X-fiz

PHASE SHIFTING FIZEAU INTERFEROMETER

_innovative, high quality Fizeau interferometer with high resolution 5 MP camera and separate 1.6 MP alignment camera

Smart Interface

_software controlled, digital zoom for optimal image processing
_software controlled, motorized pupil focus
_automatic exposure and gain to achieve ideal fringe contrast
_industry standard USB protocol used for all communications between computer and interferometer

Smart Construction

_highly rigid frame and robust opto-mechanical design ensure alignment is maintained when mounting and retained over time
_high quality piezo phase shifter with tip-tilt TS holder, compatible with Zygo style bayonet and XONOX 4+ connector
_fiber coupled 633nm, wavelength stabilized laser

Smart Maintenance

_automatic control of laser conserves lifetime and warns user when nearing end-of-life
_innovative design concept allows for change of laser and electrical components within minutes (A laser change does not require a realignment and the process can be done with the interferometer still installed within the measurement platform)

Right Sized

_100mm (4"), 132mm (5.2") and 150mm (6") versions available, 5.2" version compatible with XONOX 4+ series TS objectives without need of optical connector

LASER SOURCE	633 nm, wavelength stabilized, fiber coupled, TEC cooled, laser diode module
VERSIONS 4" (100mm) APERTURE	_ **X-fiz 100 Eco** - 4" (100mm) Fizeau Interferometer _ **X-fiz 100 ST** - 4" (100mm) Fizeau Interferometer with **X-fringe ST** static fringe analysing system _ **X-fiz 100 PS2** - 4" Phase Shifting Fizeau Interferometer **X-fringe2 PS** phase shifting fringe analysing system **TS connection for all X-fiz100 Versions:** 4" Zygo type bayonet
VERSIONS 5.2" (132mm) APERTURE	_ **X-fiz 130 Eco** - 5.2" (100mm) Fizeau Interferometer _ **X-fiz 130 ST** - 5.2" (100mm) Fizeau Interferometer with **X-fringe ST** static fringe analysing system _ **X-fiz 130 PS2** - 5.2" Phase Shifting Fizeau Interferometer **X-fringe2 PS** phase shifting fringe analysing system **TS connection for all X-fiz130 Versions:** 5.2" XONOX 4+ Interface with adapter to 4" Zygo type bayonet
VERSIONS 6" (150mm) APERTURE	_ **X-fiz 150 Eco** - 6" (100mm) Fizeau Interferometer _ **X-fiz 150 ST** - 6" (100mm) Fizeau Interferometer with **X-fringe ST** static fringe analysing system _ **X-fiz 150 PS2** - 6" Phase Shifting Fizeau Interferometer **X-fringe2 PS** phase shifting fringe analysing system **TS connection for all X-fiz150 Versions:** 6" Zygo type bayonet
CAMERA	5.0 MP, 8bit monochrome CMOS sensor
IMAGING SYSTEM / OPTICAL AXIS	low distortion imaging system with motorized pupil plane focus control / optical axis height: 131mm
CONTROL PANEL	Wired remote controller with rotating positioning controllers for zoom and focus (saturation auto adjusted)
CONNECTIONS	110-240 V / 50-60 Hz
COMPUTER/SOFTWARE	High performance Dell PC, 24" touch screen, 19" live image screen, WIN10 64 bit, X-fringe2 PS / X-fringe ST
DIMENSIONS (WxHxD) / WEIGHT	310mm x 285mm x 530mm (595mm incl. phase shifter) / approx. 35kg
COLOR	Perl-light-grey RAL 9022

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X-fringe²

ADVANCED FRINGE ANALYSIS SYSTEM

_available as static version "X-fringe ST" for static fringe analysis and "X-fringe PS2" for phase shifting fringe analysis with XONOX Piezo Phase Shifter "X-phase PMR"

_dedicated Expert- and Production Modes for convenient wave front analysis and results documentation to suit various applications

_easy and convenient, fully automatic masking and scaling funcion with integrated transmission sphere database and selection tool.

_setup manually or via XONOX QR-Code metrology network

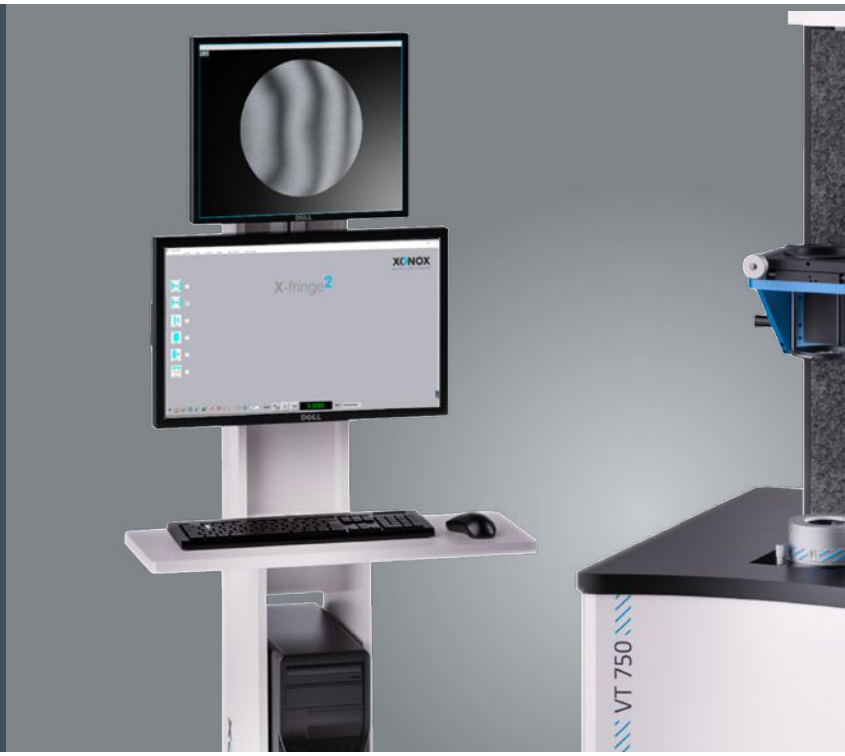
_automatic lens numbering, creation of files and directories for complete and comprehensive documentation of measurement results for complete batches

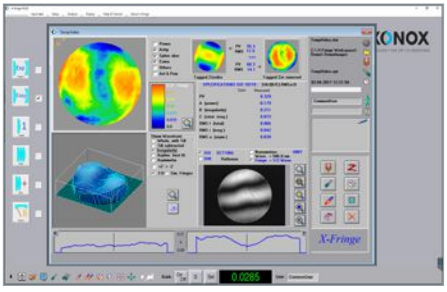
_ISO compliant result sheets and batch documentation with In/Out of spec display in different colors

_integrated with linear measuring system for utilization of lens position within various applications directly in the software

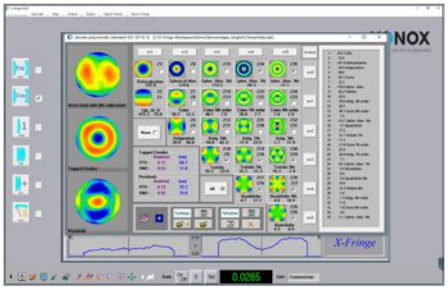
_automated radius measuring tool with built-in capability to locate locations of catseye and confocal positions for precise RoC measurement without the need to precisely align surface in these locations

_automatic identification and documentation of used transmission sphere, transmission sphere data and lens holder system

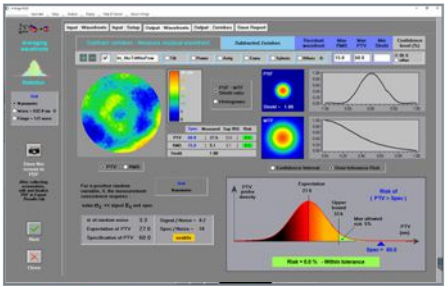




Expert Mode for comprehensive analysis

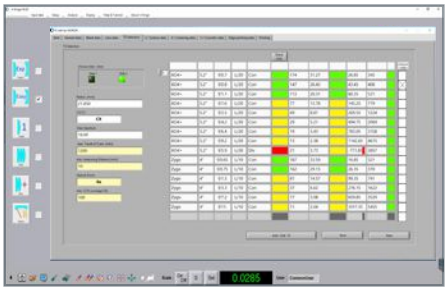


advanced analysis of Zernike polynominals



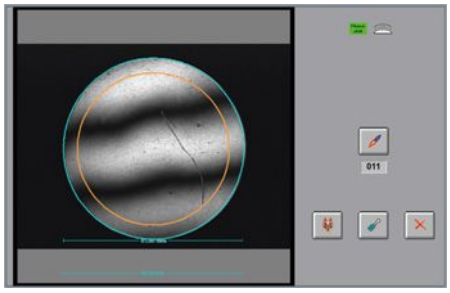
advanced wavefront analysis functionality

radius of curvature measurement tool

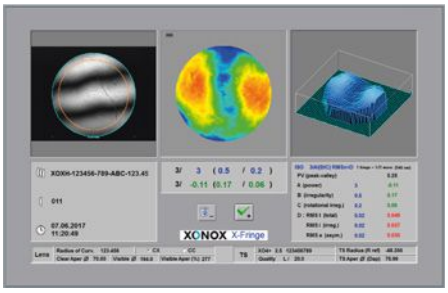


integrated transmission sphere data base / selection

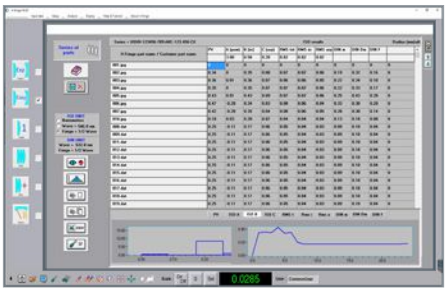
Easy Production Mode with fast QR Code setup



automatic mask, scaling and lens numbering



Clean and clear ISO result sheet for lens production



series documentation with results and statistics

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X-mini Objectives

INTERFEROMETER OBJECTIVES

_compatible with **XONOX X-mini** - phase shifting Twyman Green style interferometer

_infinity corrected designs

_very affordable and cost efficient

_industry standard M26 x 0.7 interface

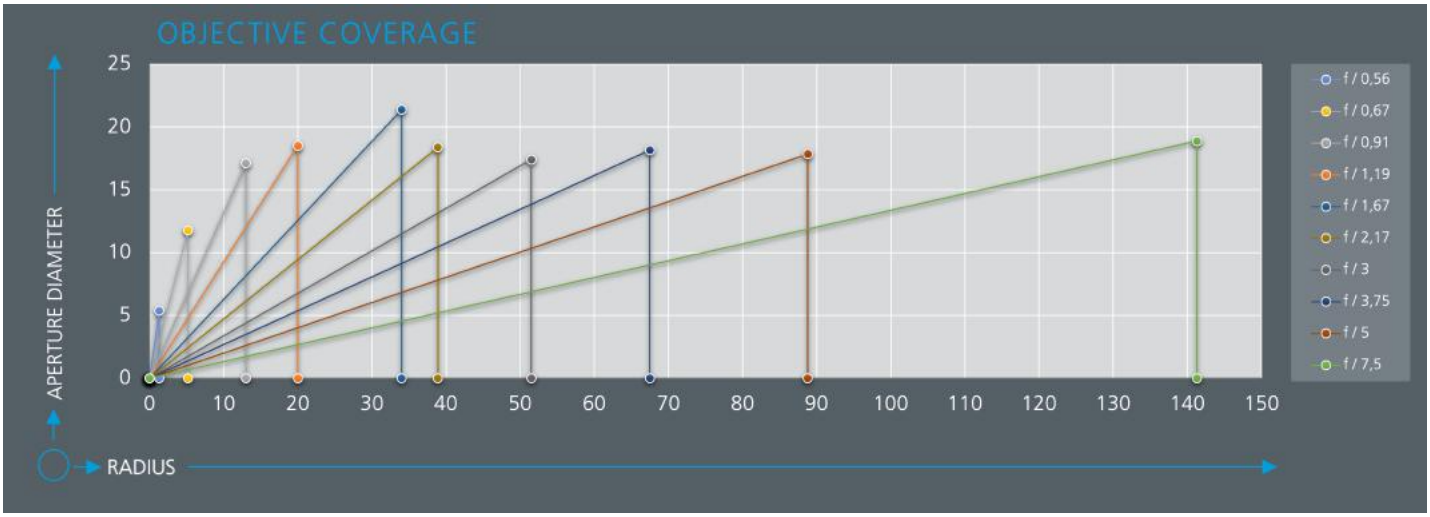
_selection provides excellent coverage for the measurement of spherical surfaces 13mm (0.5“) and smaller
(many more compatible objectives are commercially available)

_high quality reference surfaces are supplied for objective software supported callibration on X-mini Interferometer system

_**X-mini** system accuracy is Lambda/20 PV due to integrated reference and advanced system error compensation via **XONOX X-fringe** phase shifting analysis software

_for testing flat surfaces of diameter 20mm and smaller, there is no objective required

_small form factor compared to „XONOX 4plus“ Fizeau Transmission Spheres



OBJECTIVE	f / 0.67	f / 0.91	f / 1.19	f / 1.67	f / 2.17	f / 3.00	f / 3.75	f / 5.00	f / 7.50
MANUFACTURER	Mitutoyo			Optem	Seiwa	XONOX			
NUMERICAL APERTURE	0.75	0.55	0.42	0.30	0.23	0.17	0.13	0.10	0.07
WORKING DISTANCE [mm]	5.2	13.0	20.0	34.0	38.9	51.5	67.5	88.8	141.3
MOUNTING INTERFACE	M26 x 0.7 Thread								
HOUSING DIAMETER [mm]	34					31			
HOUSING LENGTH [mm]*	86.80	82.00	80.00	76.00	56.25	22.00			

* without thread
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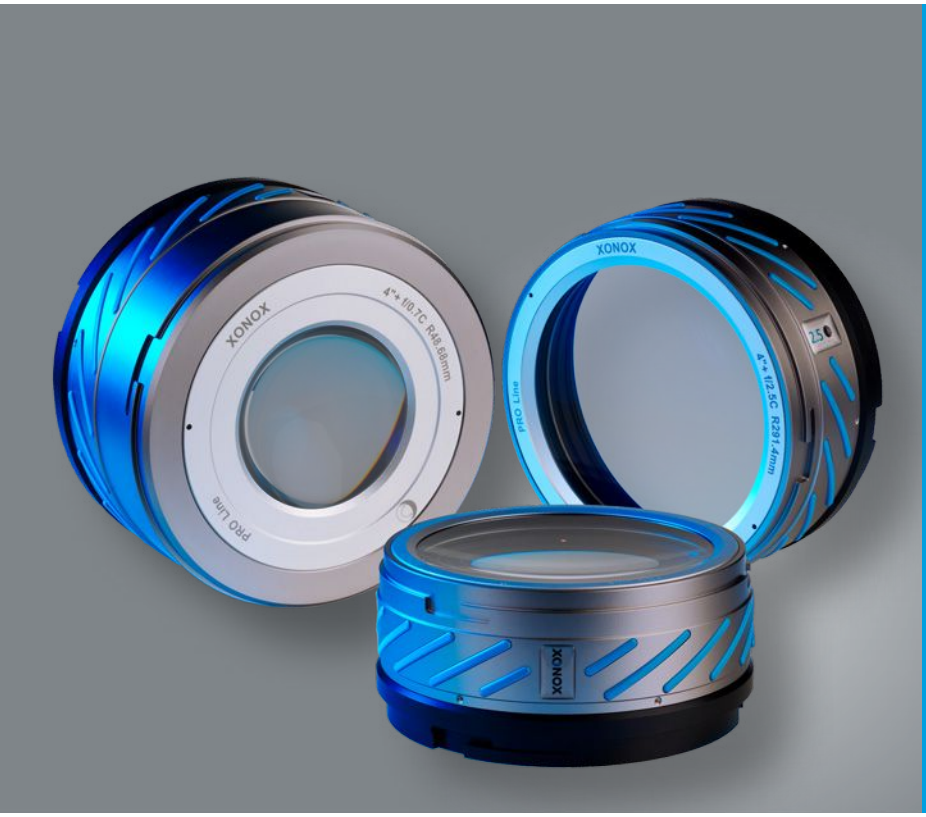
XONOX 4+



5.2" FIZEAU TRANSMISSION SPHERE LINE FOR USE ON 4" INTERFEROMETERS

PROVIDING EXTENDED MEASURING RANGE

_integrated 30% wavefront expansion turns each standard 4" interferometer virtually into a 5.2"system with 30% larger aperture

_no mechanical or optical modification required on existing systems - just mount to an existing 4" standard bayonet and start

_fully interchangeable with existing standard 4" TS

_huge added value by up to 60% more coverage of lens surfaces in terms of visible lens aperture and pricing like classical 4" TS

_innovative f/ number line for improved and gap free coverage of many more surfaces for full aperture measurement

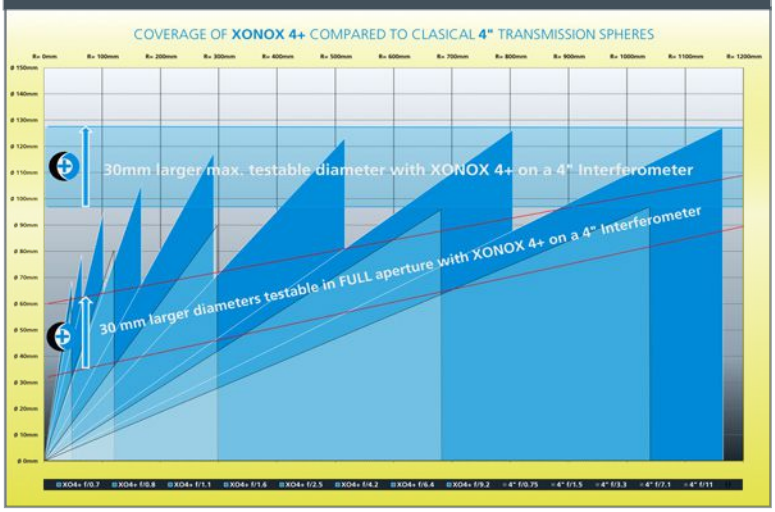
_high quality optics, mechanics and innovative assembly for long term sealing against dust

_excellent, hand crafted reference surfaces, free of any fea-tures caused by machine- or sub aperture polishing

_**Smart Case** - the practical, user oriented and safe box- and handling system

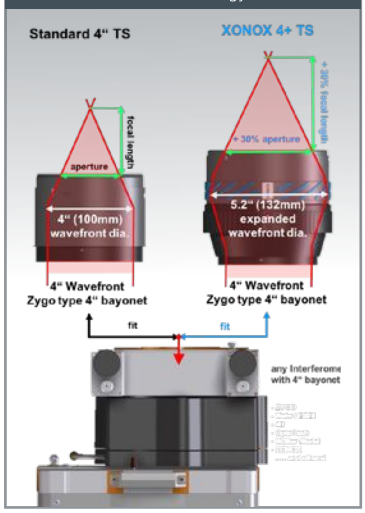
_highest quality 100% made at XONOX, Germany

The Added Value



The „SMART CASE"

The Technology



TRANSMISSION SPHERE	f / 0.7	f / 0.8	f / 1.1	f / 1.6	f / 2.5	f / 4.2	f / 6.4	f / 9.2	f / 5.9D	f / ∞
APERTURE ANGLE	91.4°	74.5°	55.4°	36.8	23.3°	13.7°	9.0°	6.3°	9.8°	-
APERTURE DIAMETER [mm]	⌀69.7	⌀79.0	⌀95.0	⌀105.4	⌀117.5	⌀123.2	⌀126.3	⌀127.1	⌀128.0	⌀129.5
RADIUS REF. SURFACE [mm]	-48.68	-65.26	-102.21	-167.10	-291.40	-516.60	-804.90	-1164.5	+750.00	flat
HOUSING DIAMETER	⌀158 mm									
HOUSING HEIGHT	82.7 mm				58.5 mm		45.5 mm		58.5 mm	45.5 mm
QUALITY OF REF. SURFACE	BASE Line: λ/10 PV • PRO Line: λ/20 PV • PRIME Line: λ/50 PV (@ 632.8 nm)									
MECHANICAL CONNECTION	ZYGO compatible 4" bayonet									

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XONOX 6"- 8"

8" (203.2mm) BEAM EXPANDER SYSTEM FOR USE ON 6" INTERFEROMETERS
PROVIDING EXTENDED MEASURING RANGE

_the **XONOX 6" to 8" Beam Expander** has been designed to be fully compatible with commercially available 6" Fizeau interferometers.

_The Beam Expander and matching **8" Transmission Flat in Lambda/20 PV quality** are ideally suited for evaluating transmitted wavefront error or surface figure error of large aperture optics.

_additional diffractive holograms or null lenses might be used to test large aperture optics of various shapes

_optional dedicated fixture to facilitate the usage of the Beam Expander and Transmission Flat in horizontal setups. The Fixture has been designed to support the weight of the assembly without restricting motion along the optical axis

_fine adjustment system for easy alignment to optical axis

Version for HORIZONTAL use

Version for VERTICAL use

8" (203.2 mm) Transmission Flat

BEAM EXPANDER 6" to 8"	
INPUT BEAM DIAMETER	6"(152.4mm)
INPUT MOUNTING	ZYGO compatible 6" bayonet
OUTPUT BEAM DIAMETER	8"(203.2mm)
OUTPUT MOUNTING	XONOX 8" bayonet
OVERALL LENGTH	276 mm
MECHANICAL DIAMETER	239 mm
WEIGHT	approx. 8 kg

8" TRANSMISSION FLAT	
APERTURE DIAMETER	8"(203.2 mm)
MOUNTING	8" XONOX bayonet
OUTPUT BEAM DIAMETER	8"(203.2mm)
HOUSING DIAMETER	236 mm
OVERALL LENGTH	65 mm (adds 45 mm when installed)
REF. SURFACE QUALITY	λ/20 PVr (@ 632.8 nm)
WEIGHT	approx. 5 kg

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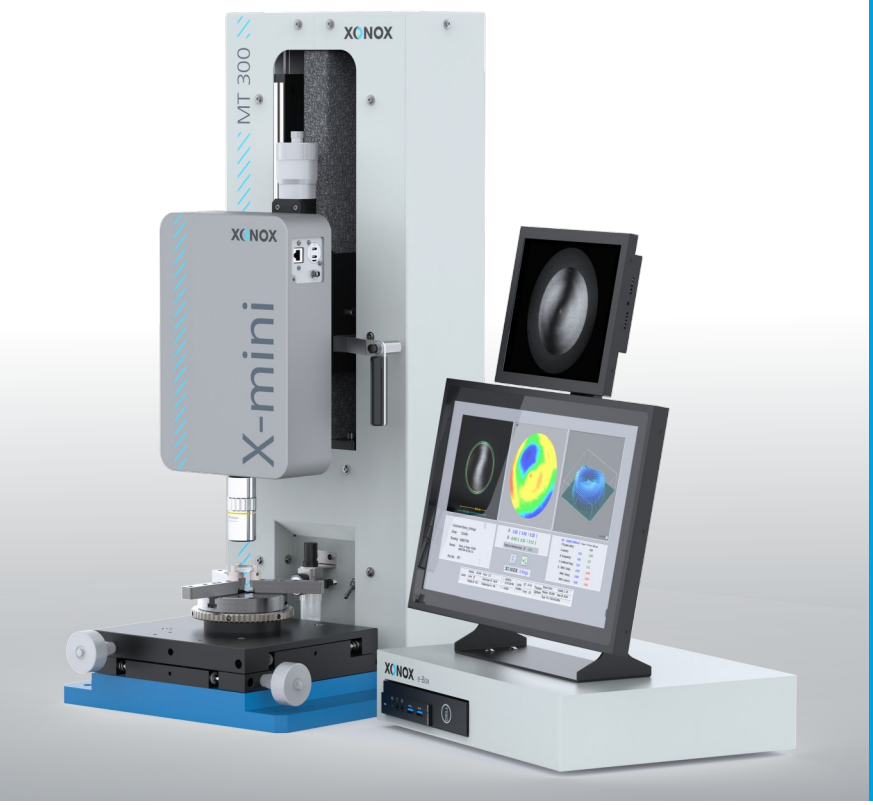
MT 300

DL SETUP



VERTICAL INTERFEROMETER SYSTEM FOR MICROOPTICS

_precision vertical interferometer workstation

_**user configurable as upward looking (UL) or downward looking (DL) system** by an innovative clamp mechanism

_optimized for testing of optical surfaces < ø1/2" (13mm)

_integrated, granite based, air-bearing provides precise and maintenance free vertical motion with 300mm of available travel

_integrated linear scale supports precise radius measurements

_compact tabletop design saves space on manufacturing floor

_large X/Y adjustment stage provides flexible platform for XONOX supplied tooling or customer specific fixturing

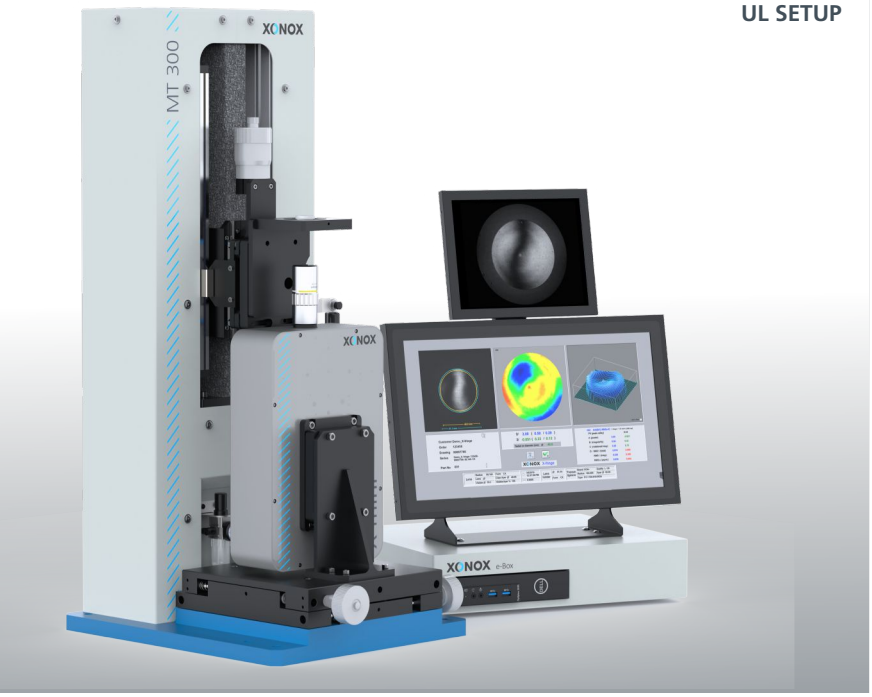
_fine Z-axis adjustment for precision nulling of power

_**XONOX X-mini** small aperture, phase shifting, Twyman-Green interferometer optimized for use with industry standard long working distance microscope objectives for unparalleled freedom and value

_**XONOX X-fringe2** software, fully featured and equipped with dedicated modes for production environments to streamline use

_compact **XONOX "e-box"** houses standard Windows PC, motor controller, phase shifter driver and support electronics

UL SETUP



WORKING RANGE	300mm of vertical travel range; >100mm between optical axis and column
INTERFEROMETER	**XONOX X-mini** Twyman-Green, 633nm, phase shifting interferometer with adjustable pupil focus
LINEAR MEASUREMENT	incremental linear measuring system with PC interface and integration with **X-fringe2**
DIMENSIONS (WxDxH) / WEIGHT	tower: 350 x 450 x 775 mm; approx. 45kg e-box: 390 x 300 x 90 mm approx. 5kg (without monitors)
CONNECTIONS	110-240 V / 50-60 Hz, compressed air: 6 bar
COLOR	light grey RAL 7035

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VT 750

VERTICAL INTERFEROMETER SYSTEM

_precision interferometer tower for production-, quality inspection- and metrology lab environments

_natural granite column with extremely flat and precise guiding surfaces provide for ease of use and very accurate measurement of radius of curvature on optical compo-nents

_highly precise and accurate linear scale with exceptional resolution, directly interfaced to fringe analysis software

_measurement table is balanced and guided on air bearing slide for quick, easy and accurate setup and movement

_small foot print and exceptional value combined with high accuracy and and rigit, maitenance free design

_robust vibration damping system, prefect for use in industrial production environments

_XONOX **X-fiz 100** (4") or **X-fiz 130** (5.2") high performance Fizeau interferometer with electronic control of optical zoom (1x to 10x), focus and contrast

_innovative, powerful and user friendly fringe analysis system **X-fringe2** with different smart and intelligent modes to suit various applications

_choose from low cost „ST" version with static fringe analysis up to high performance „PS2" phase shifting version

_system can be equipped either with PC table, 2 screens, mouse and keyboard or with built-in PC and and touch panel for optimized operation and minimized space requirement in production environment

_additionally available in a "tower only" version „B" for integrating existing or 3rd party interferometer units or version „Z" equipped with ZYGO Verifire and ZYGO MX fringe analysis software

WORKING RANGE	min. 750mm travel (800mm linear scale range), up to 200mm test diameter (depending on used TS and part holder) + micrometer fine adjustment for easy and precise setting of catseye and confocal position
VERSIONS	_ **VT750 ST** with XONOX **X-fiz 100** (4") / **X-fiz 130** (5.2") with **10x** optical zoom and static fringe analysis system XONOX „**X-fringe ST**" _ **VT750 PS2** with XONOX **X-fiz 100** (4") / **X-fiz 130** (5.2") with **10x** optical zoom, phase shifting fringe analysis system XONOX „**X-fringe2**" and piezo phase shifter XONOX „**X-phase PMR**" _ **VT750 Z** with ZYGO Verifire 4" or 6" interferometer unit and ZYGO Mx phase shifting fringe analysis _ **VT750 B** „tower only" version for integrating existing interferometer units. Optionally with XONOX fringe analysis system X-fringe ST or X-fringe PS with X-phase PMR phase shifter.
MEASURING SYSTEM	incremental high precision linear measuring system with PC interface and temperature expansion compensation function (standard) / alternatively laser distance measuring system (option)
MEASURING ACCURACY	linear scale: up to +/- 0.7µm per 500mm @ 20°C, up to 0.1 µm resolution (standard 0.5µm)
DIMENSIONS (WxDxH) / WEIGHT	800 x 900 x 2100 mm when using touch screen for fringe analysis (additional space required if PC is used for fringe analysis, XONOX PC-table optionally available) / approx. 500kg
CONNECTIONS	110-240 V / 50-60 Hz, compressed air: 6 bar
COLOR	Light grey RAL 7035

Specifications subject to change without notice

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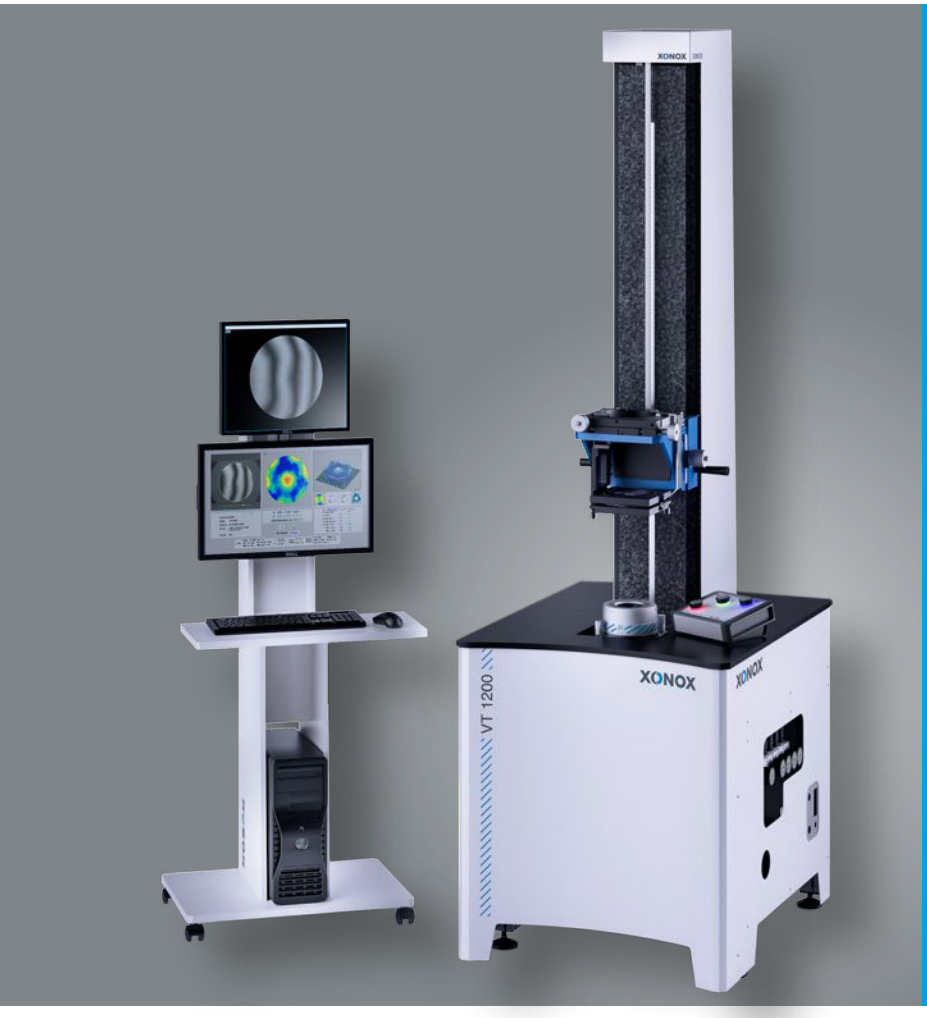
XONOX
METROLOGY FOR OPTICS REDEFINED

VT 1200



VERTICAL INTERFEROMETER SYSTEM

_precision interferometer tower for production-, quality inspection- and metrology lab environments

_exceptionally large measuring range for radii up to 1400mm

_natural granite column with extremely flat and precise guid-ing surfaces provide for ease of use and very accurate mea-surement of radius of curvature on optical components

_highly precise and accurate linear scale with exceptional resolution, directly interfaced to fringe analysis software

_measurement table is balanced and guided on air bearing slide for quick, easy and accurate setup and movement

_small foot print and exceptional value combined with high accuracy and and rigit, maitenance free design

_robust vibration damping system, prefect for use in industrial production environments

_XONOX **X-fiz 100** (4“) or **X-fiz 130** (5.2“) high performance Fizeau interferometer with electronic control of optical zoom (1x to 10x), focus and contrast

_innovative, powerful and user friendly fringe analysis system **X-fringe2** with different smart and intelligent modes to suit various applications

_choose from low cost „ST“ version with static fringe analysis up to high performance „PS2“ phase shifting version

_system can be equipped either with PC table, 2 screens, mouse and keyboard or with built-in PC and and touch panel for optimized operation and minimized space requirement in production environment

_additionally available in a “tower only” version „B“ for integrating existing or 3rd party interferometer units or version „Z“ equipped with ZYGO Verifire and ZYGO MX fringe analysis software

WORKING RANGE	min. 1200mm travel (1400mm linear scale range), up to 200mm test diameter (depending on used TS and part holder) + micrometer fine adjustment for easy and precise setting of catseye and confocal position
VERSIONS	_ **VT1200 ST** with XONOX **X-fiz 100** (4“) / **X-fiz 130** (5.2“) with **10x** optical zoom and static fringe analysis system XONOX „**X-fringe ST**“ _ **VT1200 PS2** with XONOX **X-fiz 100** (4“) / **X-fiz 130** (5.2“) with **10x** optical zoom, phase shifting fringe analysis system XONOX „**X-fringe2**“ and piezo phase shifter XONOX „**X-phase PMR**“ _ **VT1200 Z** with ZYGO Verifire 4“ or 6“ interferometer unit and ZYGO Mx phase shifting fringe analysis _ **VT1200 B** „tower only“ version for integrating existing interferometer units. Optionally with XONOX fringe analysis system X-fringe ST or X-fringe PS with X-phase PMR phase shifter.
MEASURING SYSTEM	incremental high precision linear measuring system with PC interface and temperature expansion compensation function (standard) / alternatively laser distance measuring system (option)
MEASURING ACCURACY	linear scale: up to +/- 0.7µm per 500mm @ 20°C, up to 0.1 µm resolution (standard 0.5µm)
DIMENSIONS (WxDxH) / WEIGHT	800 x 900 x 2650 mm when using touch screen for fringe analysis (additional space required if PC is used for fringe analysis, XONOX PC-table optionally available) / approx. 650kg
CONNECTIONS	110-240 V / 50-60 Hz, compressed air: 6 bar
COLOR	Light grey RAL 7035

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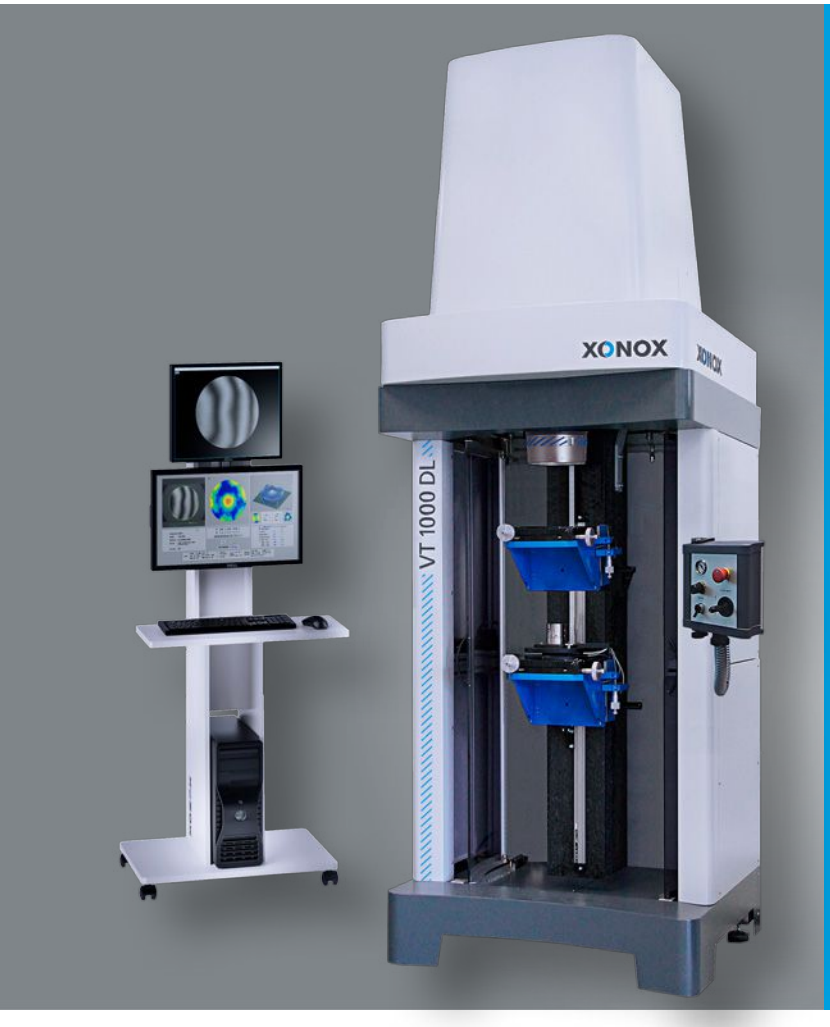
METROLOGY FOR OPTICS REDEFINED

VT 1000 DL



VERTICAL DOWNWARD LOOKING INTERFEROMETER

_precision vertical downward looking interferometer system for full aperture testing of optics in production-, quality inspection- and metrology lab environments

_optimized for the use in combination with sub-aperture polishing- and correction processes on flat optics, spheres and aspheres

_integrated features and technologies for perfect alignment of measurement data with the coordinate system/axis of sub aperture correction machines for achievement of highest correction quality and efficiency

_natural granite column with extremely flat and precise guiding surfaces provide for ease of use and very accurate measurement of radius of curvature on optical components

_highly precise and accurate linear scale with exceptional resolution, directly interfaced to fringe analysis software

_measurement table(s), balanced and guided on air bearing slide for quick, easy and accurate setup and movement

_fully closed measuring area with innovative door system for precise and reliable, undisturbed measurements

_robust vibration damping system, prefect for use in industrial production environments

_XONOX **X-fiz 100** (4“) or **X-fiz 130** (5.2“) high performance Fizeau interferometer with electronic control of optical zoom (1x to 10x), focus and contrast

_innovative, powerful, user friendly fringe analysis system**X-fringe2** with different smart and intelligent modes to suit various applications

_choose from low cost „ST“ version with static fringe analysis up to high performance „PS2“ phase shifting version

_additionally available in a “tower only” version „B“ for integrating existing or 3rd party interferometer units or version „Z“ equipped with Zygo Verifire and Zygo MX fringe analysis software

WORKING RANGE	min. 1000mm travel, up to 250mm test diameter (depending on used TS and part holder) + micrometer fine adjustment for easy and precise adjustment of catseye and confocal position
VERSIONS	_ **VT1000 DL ST** with XONOX **X-fiz 100** (4“) / **X-fiz 130** (5.2“) with **10x** optical zoom and static fringe analysis system XONOX „**X-fringe ST**“ _ **VT1000 DL PS2** with XONOX **X-fiz 100** (4“) / **X-fiz 130** (5.2“) with **10x** optical zoom, phase shifting fringe analysis system XONOX „**X-fringe2**“ and piezo phase shifter XONOX „**X-phase PMR**“ _ **VT1000 DL Z** with ZYGO Verifire 4“ or 6“ interferometer unit and ZYGO Mx phase shifting fringe analysis _ **VT1000 DL B** „tower only“ version for integrating existing interferometer units. Optionally with XONOX fringe analysis system X-fringe ST or X-fringe PS with X-phase PMR phase shifter. _ **All versions** can be equipped with 1 or 2 measuring slides and CGH multi axis holder on request
MEASURING SYSTEM	incremental high precision linear measuring system with PC interface with temperature expansion compensation function (standard) / alternatively laser distance measuring system (option)
MEASURING ACCURACY	linear scale: up to +/- 0.7µm per 500mm @ 20°C, up to 0.1 µm resolution (standard 0.5µm)
DIMENSIONS (WxDxH) / WEIGHT	1200 x 900 x 2800 mm (additional space required if PC is used for fringe analysis, XONOX PC-table optionally available) / approx. 950kg
CONNECTIONS	110-240 V / 50-60 Hz, compressed air: 6 bar
COLOR	Light grey RAL 7035

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XONOX
METROLOGY FOR OPTICS REDEFINED

HS 1200

HORIZONTAL INTERFEROMETER SYSTEM

_precise horizontal interferometer system for laboratories, R&D, optical workshops and quality inspection

_additionally mountable and moveable optical table in combination with high precision linear axis embedded in optical table

_vibration damping and level regualting system for perfect usage in R&D as well as industrial environment

_linear measuring slide guided by precision air bearing for quick, easy and accurate movement

_natural granite column with extremely flat and precise guid-ing surfaces for high precision radius of curvature measure-ments on optical components and precise linear setup's

_high precision incremental linear scale with highest resolution and direct software interface

_XONOX X-fiz 100 (4") or X-fiz 130 (5.2") high perfor-mance Fizeau interferometer with electronic control of optical zoom (1x to 10x), focus and contrast

_innovative, powerful and user friendly fringe analysis sys-tem X-fringe2 with different smart and intelligent modes to suit various applications

_choose from low cost „ST" version with static fringe ana-lysis up to high performance „PS2" phase shifting version

_additionally available in a "workstation only" version „B" for integrating existing or 3rd party interferometer units or version „Z" equipped with ZYGO Verifire and ZYGO MX fringe analysis software

WORKING RANGE	min. 1200mm travel (1400mm linear scale range), up to 200mm test diameter (depending on used TS and part holder) + micrometer fine adjustment for easy and precise setting of catseye and confocal position
VERSIONS	_ **HS1200 ST** with XONOX **X-fiz 100** (4") / **X-fiz 130** (5.2") with **10x** optical zoom and static fringe analysis system XONOX „**X-fringe ST**" _ **HS1200 ST PS2** with XONOX **X-fiz 100** (4") / **X-fiz 130** (5.2") with **10x** optical zoom, phase shifting fringe analysis system XONOX „**X-fringe2**" and piezo phase shifter XONOX „**X-phase PMR**" _ **HS1200 ST Z** with ZYGO Verifire 4" or 6" interferometer unit and ZYGO Mx phase shifting fringe analysis _ **HS1200 ST B** „tower only" version for integrating existing interferometer units. Optionally with XONOX fringe analysis system X-fringe ST or X-fringe PS with X-phase PMR phase shifter.
MEASURING SYSTEM	inncremental high precision linear measuring system with PC interface and temperture expansion compensation function (standard) / alternatively laser distance measuring system (option)
MEASURING ACCURACY	inear scale: up to +/- 0.7µm per 500mm @ 20°C, up to 0.1 µm resolution (standard 0.5µm)
DIMENSIONS (WxDxH) / WEIGHT	2150 x 900 x 1100 mm without interferometer and accessories (additional space required if PC is used for fringe analysis, XONOX PC-table optionally available) / approx. 600kg
CONNECTIONS	110-240 V / 50-60 Hz, compressed air: 6 bar
COLOR	Light grey RAL 7035

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iQC READY

XONOX
METROLOGY FOR OPTICS REDEFINED

HS 1200 light

HORIZONTAL INTERFEROMETER SYSTEM

_precise horizontal interferometer system for laboratories, R&D, optical workshops and quality inspection

_prepared for mounting on customers existing optical table

_linear measuring slide guided by precision air bearing for quick, easy and accurate movement

_natural granite column with extremely flat and precise guid-ing surfaces for high precision radius of curvature measurements on optical components and precise linear setup's

_high precision incremental linear scale with highest resolution and direct software interface

_XONOX X-fiz 100 (4") or X-fiz 130 (5.2") high performance Fizeau interferometer with electronic control of optical zoom (1x to 10x), focus and contrast

_innovative, powerful and user friendly fringe analysis system **X-fringe2** with different smart and intelligent modes to suit various applications

_choose from low cost „ST" version with static fringe analysis up to high performance „PS2" phase shifting version

WORKING RANGE	min. 1200mm travel (1400mm linear scale range), up to 200mm test diameter (depending on used TS and part holder)
VERSIONS	_ **HS1200** light **ST** with XONOX **X-fiz 100** (4") / **X-fiz 130** (5.2") with **10x** optical zoom and static fringe analysis system XONOX „**X-fringe ST**" _ **HS1200** light **PS2** with XONOX **X-fiz 100** (4") / **X-fiz 130** (5.2") with **10x** optical zoom, phase shifting fringe analysis system XONOX „**X-fringe2**" and piezo phase shifter XONOX „**X-phase PMR**"
MEASURING SYSTEM	incremental high precision linear measuring system with PC interface and temperature expansion compensation function (standard) / altrnatively laser distance measuring system (option). Honeycomb optical table optional - column can be used with standard vibration isolated optical table provided by user.
MEASURING ACCURACY	linear scale: up to +/- 0.7µm per 500mm @ 20°C, up to 0.1 µm resolution (standard 0.5µm)
DIMENSIONS (WxDxH) / WEIGHT	depending on used optical table, XONOX PC-table optionally available) / approx. 400kg
CONNECTIONS	110-240 V / 50-60 Hz, compressed air: 6 bar
COLOR	natural granite

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XONOX
METROLOGY FOR OPTICS REDEFINED

PI 500

PLANO INTERFEROMETER SYSTEM

_precise vertical interferometer for testing flat optical components and plano multiple blocks

_part holder with air bearing for easy movement even of heavy workpieces for fringe analyzing in different positions

_tip-tilt unit for easy adjustment of fringes, integrated in moveable part holder

_precision, vibration dampened measuring table made of natural granite with high flatness for comfortable analyzing in different positions without loosing fringes

_adjustable interferometer height for setting best position for different workpiece thicknesses

_XONOX **X-fiz 100** (4"), **X-fiz 130** (5.2") or **X-fiz 100-6** (6") high performance Fizeau interferometer with electronic control of optical zoom (1x to 10x), focus and contrast

_innovative, powerful and user friendly fringe analysis system **X-fringe2** with different smart and intelligent modes to suit various applications

_choose from low cost „ST" version with static fringe analysis up to high performance „PS2" phase shifting version

_system can be equipped either with PC table, 2 screens, mouse and keyboard or with built-in PC and and touch panel for optimized operation and minimized space requirement in production environment

_additionally available in a "platform only" version „B" for integrating existing or 3rd party interferometer units or version „Z" equipped with Zygo Verifire and Zygo MX fringe analysis software

WORKING RANGE	up to workpiece diameter 500 mm
VERSIONS	_ **PI500 ST** with XONOX **X-fiz 100** (4") / **X-fiz 130** (5.2") / **X-fiz 100-6** (6") with **10x** optical zoom and static fringe analysis system XONOX „**X-fringe ST**" _ **PI500 PS2** with XONOX **X-fiz 100** (4") / **X-fiz 130** (5.2") / **X-fiz 100-6** (6")with **10x** optical zoom, phase shifting fringe analysis system XONOX „**X-fringe2**" and piezo phase shifter XONOX „**X-phase PMR**" _ **PI500 Z** with ZYGO Verifire 4" or 6" interferometer unit and ZYGO Mx phase shifting fringe analysis _ **PI500 B** „platform only" version for integrating existing interferometer units. Optionally with XONOX fringe analysis system X-fringe ST or X-fringe PS with X-phase PMR phase shifter.
DIMENSIONS (WxDxH) / WEIGHT	800 x 900 x 2200 mm when using touch screen for fringe analysis (additional space required if PC is used for fringe analysis, XONOX PC-table optionally available) / approx. 600kg
CONNECTIONS	110-240 V / 50-60 Hz, compressed air: 6 bar
COLOR	Light grey RAL 7035

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XONOX
METROLOGY FOR OPTICS REDEFINED

2 COMPREHENSIVE LINE OF SOFTWARE CONTROLLED DEVICES

_FOR PRECISE VERIFICATION AND DOCUMENTATION OF ALL OPTICAL ELEMENT DIMENSIONS – ALL FROM A SINGLE SOURCE

CT MULTI DIMENSION TESTING

CT200 AND CT300 FOR MEASURING CENTER THICKNESS - SAGITTAL DEPTH - TOTAL HEIGHT - APERTURE DIAMETER ON ONE SINGLE DEVICE

CT-NC CONTACTLESS TESTING

CT200 NC FOR ACCURATE CONTACTLESS TESTING OF CENTER THICKNESS ON OPTICAL COMPONENTS- COMPONENTS ON HOLDERS - DOUBLETS - TRIPLETS

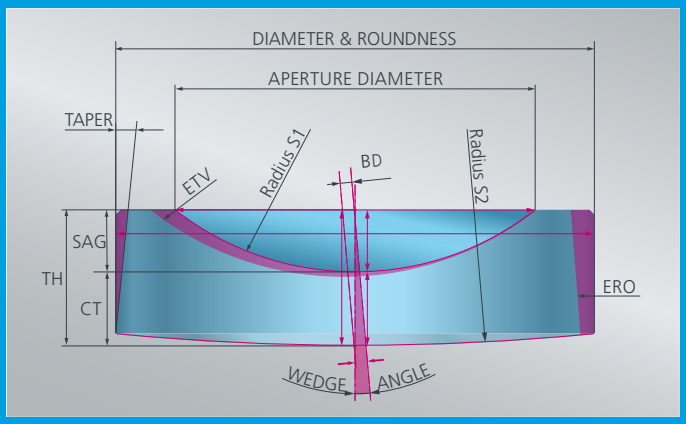
CM LENS CENTRATION TESTING

CM140 FOR TESTING CENTRATION IN REFLECTION OR TRANSMISSION - CEMENTING OF DOUBLETS AND TRIPLETS - CONVERSION FROM ANGLE IN ETV /ERO /- BD

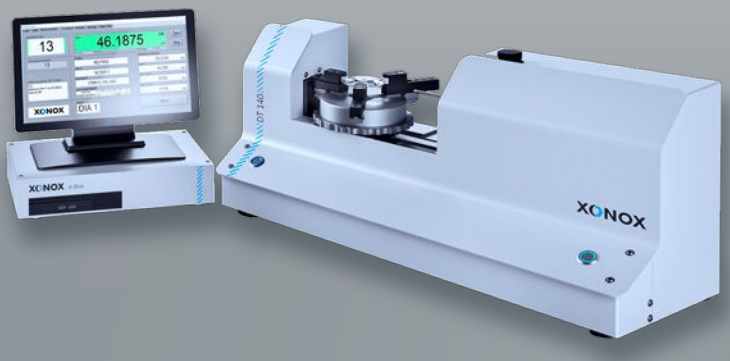
DT DIAMETER & SHAPE TESTING

DT140 FOR TESTING DIAMETER - ROUNDNESS AND TAPER ON LENSES. FOR QUALITY INSPECTION AND CENTERING MACHINE SETUP

MEASUREMENT SYSTEMS FOR ALL ELEMENT DIMENSIONS



ALL POWERED BY THE EASY TO USE **X-APP** SOFTWARE



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XONOX

METROLOGY FOR OPTICS REDEFINED

CT200G2

CENTER THICKNESS MEASUREMENT SYSTEM
GENERATION 2

_Generation 2 - now equipped with electronic control of measuring cycle via touch screen interface.

_Software controlled editing and configuration of automated motion cycles, linked to the specific job (X-ct package required).

_highly precise and robust Center Thickness measurement system for ground, polished and coated optics in both, production and quality inspection environments.

_designed for long term reliability and cost effective operation.

_measurements of SAG depth, surface aperture diameter, total lens height and stock removal are supported in addition to CT measurement.

_lenses automatically centered with an innovative precision 3-jaw chuck system.

_direct measurement of CT achieved through automatic, pneumatic actuation of probes that touch the upper and lower sides of the workpiece simultaniously.

_easy, fast and safe setup and loading of workpieces.

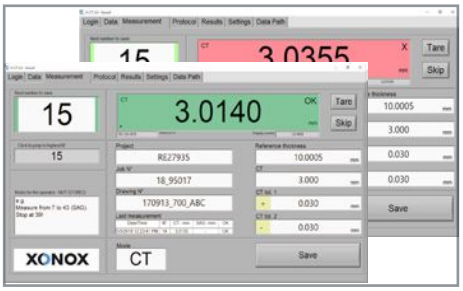
_proven by many independent parties to virtually eliminate the risk of damage to even the most sensitive polished and coated optics with strict cosmetic requirements.

_large measurement range from below Ø8mm up to Ø200mm

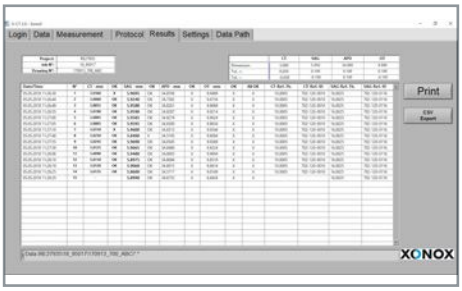
_foot switch for easy and efficient measurement of series.

_optional software and controller package, "X-ct" along with the innovative "**XONOX e-box**" hardware offers additional measurement modes, automatic documentation creation, and data logging of measurement results.

SOFTWARE + CONTROLLER PACKAGE X-ct



- easy and touch screen optimized dialogue user interface
- automatic counting / numbering of lenses
- green (in spec) or red (out of spec) display of measurements
- data input manually or via QR code reader



- automatic documentation of all measurements
- listing of CT, SAG depth, Total Height, Apperture Diameter
- automatic marking IN/OUT of spec for all dimensions
- extensive data export functions + **XONOX iQC** compatible

- intelligent and easy-to-use setup for administrative functions and user handling
- quick setup for auxilliarry equipment such as QR reader, footswitch etc.
- easy network integration and path settings for documentation

WORKING RANGE	50 mm travel of measuring gauges on different adjustable positions
DIAMETER RANGE	ø8 - ø200 mm
MEASURING SYSTEM	digital precision measuring gauge with 0.5µm resolution
MEASURING ACCURACY	Resolution: 0.5µm • Accuracy: ≦ 2µm @ 20°C (higher accuracies via setup procedures) • Repeatability: 1µm
DIMENSIONS (WxDxH) / WEIGHT	460 x 300 x 650 mm (plus space for **XONOX e-box** with **X-ct control software**) / approx. 30kg
CONNECTIONS	110-240 V / 50-60 Hz, compressed air: 6 bar
COLOR	Light grey RAL 7035

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iQC READY

XONOX
METROLOGY FOR OPTICS REDEFINED

CT 300G2

CENTER THICKNESS MEASUREMENT SYSTEM
GENERATION 2

_Generation 2 - now equipped with electronic control of measuring cycle via touch screen interface.

_Software controlled editing and configuration of automated motion cycles, linked to the specific job (X-ct package required).

_highly precise and robust Center Thickness measurement system for ground, polished and coated optics in both, production and quality inspection environments.

_designed for long term reliability and cost effective operation.

_measurements of SAG depth, surface aperture diameter, total lens height and stock removal are supported in addition to CT measurement.

_lenses automatically centered with an innovative precision 3-jaw chuck system.

_direct measurement of CT achieved through automatic, pneumatic actuation of probes that touch the upper and lower sides of the workpiece simultaniously.

_easy, fast and safe setup and loading of workpieces.

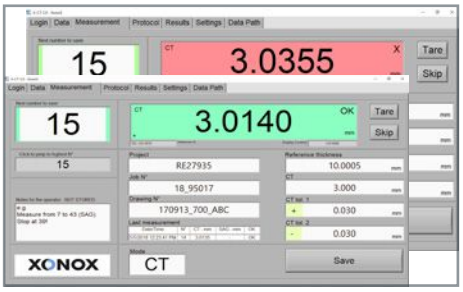
_proven by many independent parties to virtually eliminate the risk of damage to even the most sensitive polished and coated optics with strict cosmetic requirements.

_large measurement range from below Ø12mm up to Ø300mm

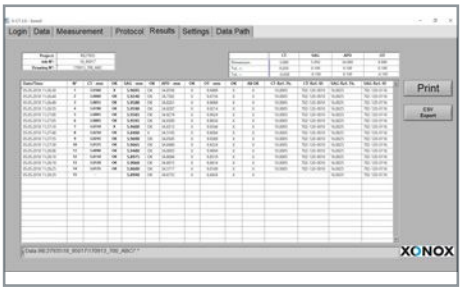
_foot switch for easy and efficient measurement of series.

_optional software and controller package, "X-ct" along with the innovative "**XONOX e-box**" hardware offers additional measurement modes, automatic documentation creation, and data logging of measurement results.

SOFTWARE + CONTROLLER PACKAGE X-ct



- easy and touch screen optimized dialogue user interface
- automatic counting / numbering of lenses
- green (in spec) or red (out of spec) display of measurements
- data input manually or via QR code reader



- automatic documentation of all measurements
- listing of CT, SAG depth, Total Height, Apperture Diameter
- automatic marking IN/OUT of spec for all dimensions
- extensive data export functions + **XONOX iQC** compatible

- intelligent and easy-to-use setup for administrative functions and user handling
- quick setup for auxilliarry equipment such as QR reader, footswitch etc.
- easy network integration and path settings for documentation

WORKING RANGE	50 mm travel of measuring gauges on different adjustable positions
DIAMETER RANGE	ø12 - ø300 mm
MEASURING SYSTEM	digital precision measuring gauge with 0.5µm resolution
MEASURING ACCURACY	Resolution: 0.5µm • Accuracy: ≦ 3µm @ 20°C (higher accuracies via setup procedures) • Repeatability: 1µm
DIMENSIONS (WxDxH) / WEIGHT	460 x 360 x 650 mm (plus space for **XONOX e-box** with **X-ct control software**) / approx. 30kg
CONNECTIONS	110-240 V / 50-60 Hz, compressed air: 6 bar
COLOR	Light grey RAL 7035

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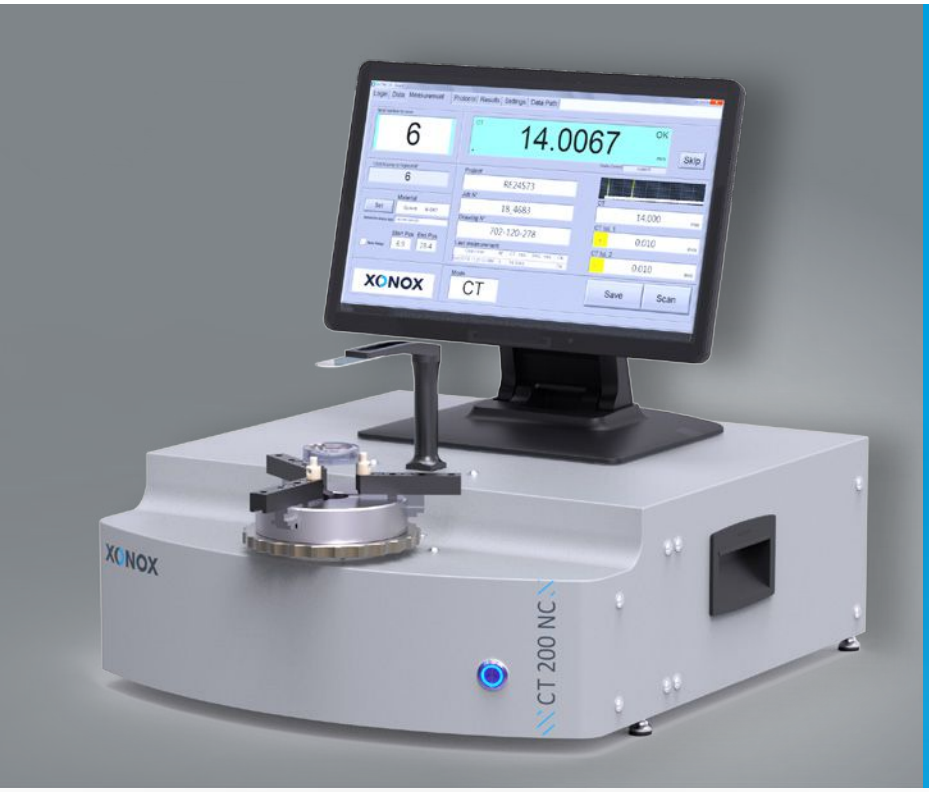
XONOX
METROLOGY FOR OPTICS REDEFINED

CT 200NC G2



NON-CONTACT
CENTER THICKNESS MEASURING SYSTEM
GENERATION 2

_Generation 2 - now with improved, continuous measuring signal, increased accuracy and faster measurements.

_highly precise and easy to use non-contact system for measuring the thickness of optical elements in both, production and quality inspection environments.

_integrated interferometric sensor for fast, reliable and high precision thickness measurement.

_measurement of single elements and doublets.

_lenses automatically centered with an innovative precision 3-jaw chuck system.

_measurements of elements with one side access only is accommodated.

_ideal for testing lenses - even mounted to holders - with demanding CT tolerances in the polishing operation.

_ergonomically positioned lens holder provides for safe, easy and fast loading and setup of workpieces.

_conveniently located touch screen allows for simple and quick operation.

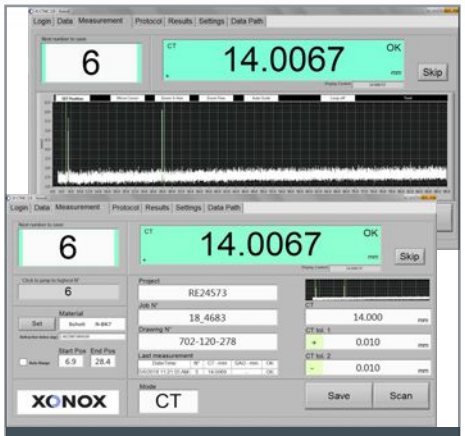
_large measurement range from micro-optics up to Ø200mm.

_extensive integrated glass database provides ready access to index data.

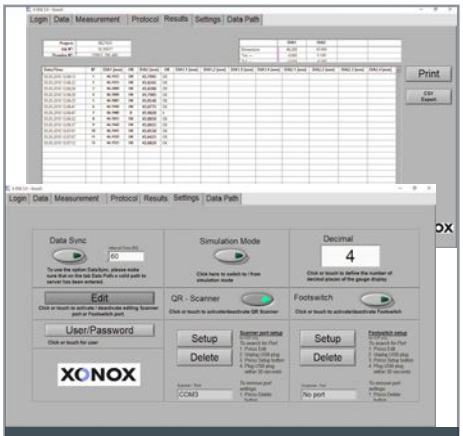
_Software supported Index finding device allows for easy and quick automatic analysis of unknown index values.

_equipped with feature rich software and controller package, "**X-ctNC**" and touchscreen interface.

SOFTWARE + CONTROLLER PACKAGE X-ctNC

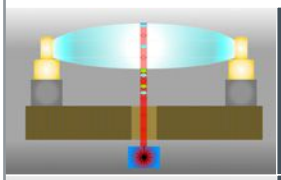


- easy, touch optimized user interface with QR code setup
- automatic numbering of lenses, IN/OUT of spec colors
- full glass database for index settings
- live display of measuring signal - zoomable by finger tip

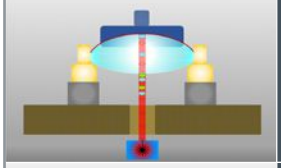


- automatic part numbering and result documentation
- automatic marking IN/OUT of spec for all dimensions
- intelligent and easy to use auxilliary and network settings
- extensive data export functions + **XONOX iQC** compatible

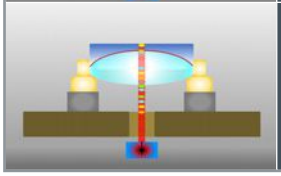
Non Contact Measurement of:



- single lenses and flats
- micro optics
- various UV-VIS-IR materials



- lenses on holders
- protection painted lenses
- lenses sticked on polishing chucks



- cemented lenses
- components with access to only one side

WORKING RANGE	80mm max. optical thickness, max. part thickness depending on material index
DIAMETER RANGE	from micro optics sizes up to ⌀200 mm
MEASURING SYSTEM	Optical interferometer based measurement with precision coaxial distance measurement system
MEASURING ACCURACY	Accuracy: +/- 1µm (depending on lens centration / index uncertainty) / Repeatability: +/- 0.5µm
MEASURING SPEED	Real-time measurements updated multiple times per second
DIMENSIONS (WxDxH) / WEIGHT	530 x 490 x 540 mm (plus touch screen height on top of instrument) / approx. 25kg
CONNECTIONS	110-240 V / 50-60 Hz
COLOR	Light grey RAL 7035

Specifications subject to change without notice

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iQC READY

XONOX
METROLOGY FOR OPTICS REDEFINED

DT 140G2

DIAMETER MEASURING SYSTEM
GENERATION 2

_Generation 2 - now equipped with electronic control of measu-ring cycle via touch screen interface. Software con-trolled editing and configuration automated motion cycles, linked to the speci-fic job (X-ct package required).

_highly precise and easy to use system for measuring the dia-meters, roundness and cone on optical elements in both, pro-duction and quality inspection environments

_designed for long term reliability and cost effective operation

_measurements of secondary diameters, roundness and taper are supported in addition to the primary diameter

_lenses automatically centered with an innovative precision 3-jaw chuck system

_direct measurement of diameter achieved through automatic, pneumatic actuation of probes that touch the edge of the workpiece

_probe contact height is adjustable to be compatible with steps and other edge features

_optimized for safe, fast and easy setup and loading of worpiece

_many times proven, absolutely risk- / damage free measure-ment of even very thin, knife edge and sensitive components

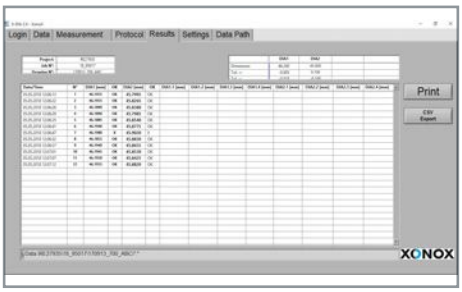
_large measurement range from below Ø8mm up to Ø140mm

_foot switch for easy and efficient measurements of series

_equipped with software and controller package, **"X-dt"** along with the innovative "**XONOX e-box**" hardware offers addi-tional measurement modes, automatic documentation creation, and data logging of measurement results

SOFTWARE + CONTROLLER PACKAGE X-dt

- easy and touch screen optimized dialogue user interface
- automatic counting / numbering of lenses
- green (in spec) or red (out of spec) display of measurements
- data input manually or via QR code reader



- automatic documentation of all measurements
- listing of DIA1, DIA2 and Roundness
- automatic marking IN/OUT of spec for all dimensions
- extensive data export functions + **XONOX** iQC compatible

- intelligent and easy-to-use setup for administrative functions and user handling
- quick setup for auxilliarry equipment such as QR reader, footswitch etc.
- easy network integration and path settings for documentation

WORKING RANGE	50 mm travel of measuring gauges on different adjustable positions
DIAMETER RANGE	⌀8 - ⌀140 mm
MEASURING SYSTEM	digital precision measuring gauge with 0.5µm resolution
MEASURING ACCURACY	Resolution: 0.5µm • Accuracy: ≦ 2µm @ 20°C (higher accuracies via setup procedures) • Repeatability: 1µm
DIMENSIONS (WxDxH) / WEIGHT	460 x 300 x 350 mm (plus space for **XONOX e-box** with **X-dt control software**) / approx. 30kg
CONNECTIONS	110-240 V / 50-60 Hz, compressed air: 6 bar
COLOR	Light grey RAL 7035

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iQC READY

XONOX
METROLOGY FOR OPTICS REDEFINED

CM140G2

CENTERING ERROR MEASUREMENT SYSTEM
GENERATION 2

_Generation 2 - now with automatic z-axis positioning plus software supported electronic motion- and vaccum control, linked to the specific job. Additional HR screen, displaying actual status of rotation-, led- and vacuum level.

_precise and easy to operate non-contact measurement system for determining centering errors on lens elements in production, quality inspection or metrology lab environments.

_measurements facilitated by precision autocollimator and secondary substage collimator.

_software recall of previous setups facilitates efficient use for recurring jobs.

_lens centering can be measured in transmission or reflection.

_unique, height adjustable chuck, automatically centers lenses of various diameters and correctly locates friction wheel for efficient loading and operation.

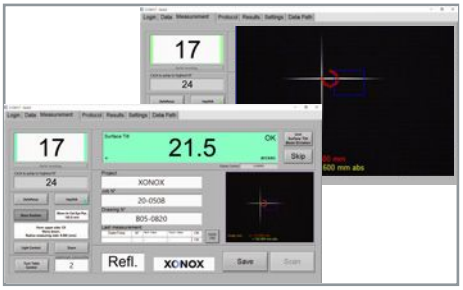
_very fast and convenient setup of lensholder without any need for changing or adjusting a V-stop.

_commonly used functions are conveniently located for easy access and direct control over Z-axis height, vacuum, speed, crosshair display.

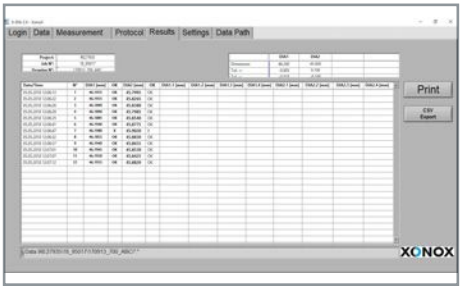
_large measurement range.

_equipped with **"X-cm"**, an extensive software and controller package, that offers various operating modes and provides automatic measurement results of complete series.

SOFTWARE + CONTROLLER PACKAGE X-cm



- easy and touch screen optimized dialogue user interface
- automatic counting / touch zoom for measuring window
- green (in spec) or red (out of spec) display of measurements
- data input manually or via QR code reader



- automatic documentation of all measurements
- listing of surface tilt, edge runout and beam deviation
- automatic marking IN/OUT of spec for all dimensions
- extensive data export functions + X-metroLINK cpmpatible

- intelligent and easy-to-use setup for administrative functions and user handling
- quick setup for auxilliarry equipment such as QR reader, footswitch etc.
- easy network integration and path settings for documentation

WORKING RANGE	750 mm travel of Z-axis
DIAMETER RANGE	⌀8 - ⌀140 mm
MEASURING SYSTEM	precision autocollimator and secondary substage collimator
DIMENSIONS (WxDxH) / WEIGHT	590 x 570 x 1300 mm (additional space required for X-dia PC) / approx. 35kg
CONNECTIONS	110-240 V / 50-60 Hz, compressed air: 6 bar
COLOR	Light grey RAL 7035

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iQC READY

XONOX
METROLOGY FOR OPTICS REDEFINED

EPS100

EDGE AND MASK PAINTING SYSTEM

_system for safe, easy and efficient painting and varnishing of edges and precise surface masks on optical components

_observation of the painting area via live video system with monitor and high magnification

_exact adjustment of aperture mask for painting limits via software and precise gauge

_adjustment of lens position and easy re-loading of lenses using precisely adjustable and pneumatically moveable V-Stop

_quality control for mask diameter directly after finishing of painting

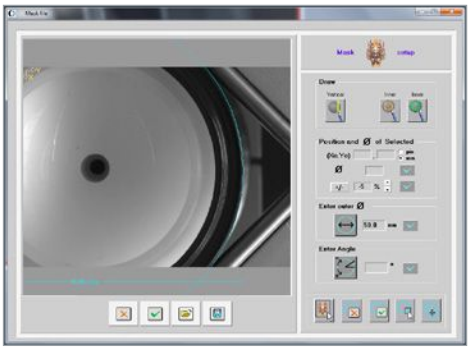
_infinitely adjustable rotation speed of workpiece spindle

_infinitely adjustable vacuum for lens holding on resin chuck

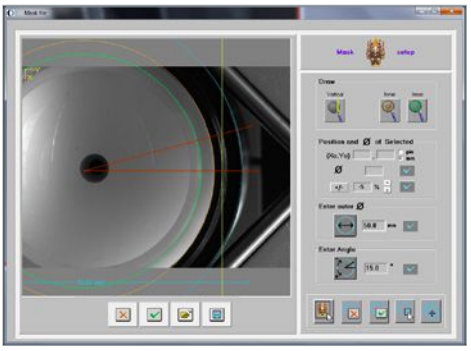
_pedals for vacuum on/off and spindle rotation on/off for easy and efficient use even when painting high volumes

_operation optionally via standard camera software or com-prehensive software tool XONOX "X-paint" with advanced functionality for various and multiple masks

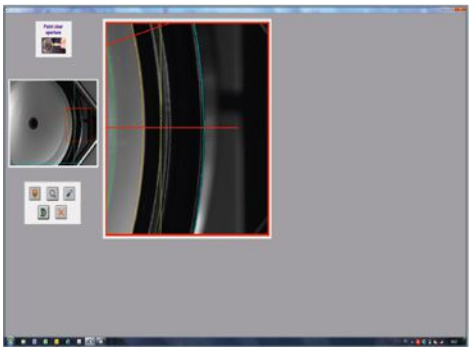
SOFTWARE + CONTROLLER PACKAGE X-paint



comprehensive, easy to use mask and angle editor with precise scaling tool



multiple masks, angles angle marks and precise scaling of mask dimensions.



easy to use, variable zoom for live painting observation and final quality inspection

WORKING RANGE	up to workpiece diameter 100 mm
SPINDLE SPEED	0 - 300 rpm infinitely variable
VACUUM	0 to -0.6 bar infinitely adjustable
DIMENSIONS (WxDxH)	500 x 300 x 700 mm (additional space required for PC and monitor)
WEIGHT	approx. 30 kg
CONNECTIONS	110-240 V / 50-60 Hz, compressed air: 6 bar
COLOR	Light grey RAL 7035

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XONOX
METROLOGY FOR OPTICS REDEFINED

3 JOB MANAGEMENT AND QC DOCUMENTATION SOFTWARE

DEVELOPED WITH MANUFACTURING EXPERIENCE - FULLY COMPATIBLE WITH ALL XONOX INSTRUMENTS AND ACCESSORIES

X-JOB - AT PROCESS INITIATION

SOFTWARE FOR JOB PLANNING, SYSTEM SETUP AND MEASUREMENT DATA COLLECTION

X-SD - S&D DOCUMENTATION

SOFTWARE FOR ELECTRONIC DOCUMENTATION OF COSMETIC DEFECTS TO BE RECORDED IN X-JOB

X-JOB - AT PROCESS COMPLETION

SOFTWARE FOR FINAL AND PROFESSIONAL QC DOCUMENTATION OF PRODUCTION BATCHES

X-JOB ACCESSORIES & HARDWARE

LENS TRAYS IN VARIOUS SIZES AND CAPACITIES, COMPATIBLE WITH X-JOB SERIES MANAGEMENT

iQC READY

XONOX

METROLOGY FOR OPTICS REDEFINED

4 IQC - THE INTEGRATED QUALITY CONTROL SYSTEM

_BASED ON XONOX METROLOGY INSTRUMENTS, INTERFEROMETERS, SOFTWARE AND SYSTEMS

XONOX iQC

IQC WORK- AND DATA FLOW STARTING WITH 1 JOB PREPARATION THROUGH 2 ALL MEASUREMENTS TO 3 FULLY AUTOMATED QC DOCUMENTATION

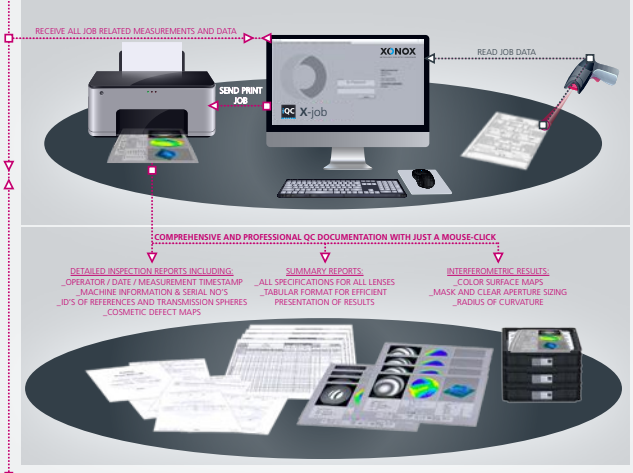
STEP 1 JOB PREPARATION

SERVER LOADED WITH ALL JOB DATA AND LENS SPECIFICATIONS

QR-LABELED BOXES, LENSES AND QR-JOB-SHEET READY TO GO TO INSPECTION

SERVER SUPPLIES JOB DATA TO INSTRUMENTS AND RECEIVES MEASUREMENTS FROM INSTRUMENTS

STEP 3 QC DOCUMENTATION



STEP 2 MEASUREMENT OF ALL DIMENSIONS