



Artisan Technology Group is your source for quality new and certified-used/pre-owned equipment

- FAST SHIPPING AND DELIVERY
- TENS OF THOUSANDS OF IN-STOCK ITEMS
- EQUIPMENT DEMOS
- HUNDREDS OF MANUFACTURERS SUPPORTED
- LEASING/MONTHLY RENTALS
- ITAR CERTIFIED SECURE ASSET SOLUTIONS

SERVICE CENTER REPAIRS

Experienced engineers and technicians on staff at our full-service, in-house repair center

*InstraView*SM REMOTE INSPECTION

Remotely inspect equipment before purchasing with our interactive website at www.instraview.com ↗

WE BUY USED EQUIPMENT

Sell your excess, underutilized, and idle used equipment. We also offer credit for buy-backs and trade-ins. www.artisanng.com/WeBuyEquipment ↗

LOOKING FOR MORE INFORMATION?

Visit us on the web at www.artisanng.com ↗ for more information on price quotations, drivers, technical specifications, manuals, and documentation

Contact us: (888) 88-SOURCE | sales@artisanng.com | www.artisanng.com

White Light Interferometer

WYKO RST Plus White Light Interferometer

Description:

The WYKO RST (Rough Surface Tester) is a non-contact optical instrument capable of very sensitive 3D surface profilometry and surface roughness characterisation. The instrument may operate in two distinct measurement modes; firstly optical phase-shifting mode, for use with reflective, mirror-like objects and secondly vertical-scanning mode, for use with rougher surfaces. If you are interested in us performing contract RST measurements for you, contact the EDC for details and rates.

RST Plus Specification:

(U.S. Patents 4,931,630; 5,133,601; 5,204,734)

System:

Measurement technique	1/ optical phase-shifting interferometry 2/ vertical scanning
Measurement capability	Three-dimensional surface profile measurements
Objective Lenses*	(1.5X), 2.5X , 10X , (20X), 40X , (100X)
Field Lenses	0.5X , 1.0X , 2.0X
Field of view	Variable (up to 4.9 mm - See table below)
Measurement array size	Selectable (128 x 128 to 739 x 484)
Light source	Tungsten halogen lamp
Stage	±6° tip/tilt, ±90° rotation, ±2 in x,y
Video display	9 in black and white monitor
Computer system	Pentium™ Class PC
Signal output	CCIR
Active pixels	739 (H) x 484 (V)
Alignment system	Fringe viewing and twin spot alignment
Software	WYKO Vision™ software running under Microsoft Windows™

*Objectives that are installed on our GERI system are shown underlined in bold, other lenses available shown in brackets.

Magnification Objectives:

Magnification objective	2.5X	10X	40X
Interferometer type	Michelson	Mirau	Mirau
Numerical aperture	0.075	0.25	0.50
Working distance (mm)	2.0	4.0	3.9
Field of view	4.9 x 3.7	1.2 x 0.9	0.3 x 0.2
[with magnification selector] (mm)	2.6 x 1.9	0.6 x 0.5	0.2 x 0.1
	1.3 x 1.0	0.3 x 0.2	0.08x0.06
High resolution spatial sampling interval	7.6	1.9	0.5
[with magnification selector] ($\text{\AA}\mu\text{m}$)	4.0	1.0	0.2
	2.0	0.5	0.1
Standard resolution spatial sampling interval	15.2	3.8	1.0
[with magnification selector] ($\text{\AA}\mu\text{m}$)	8.0	2.0	0.4
	4.0	1.0	0.2

Performance:

Vertical measurement range	0.1 nm to 500 μm ; (optional to 1 mm)
Vertical resolution	<1 \AA Ra
Scan speed	3.6/7.2 $\mu\text{m}/\text{sec}$

Environment:

Temperature range	0.1 nm to 500 μm ; (optional to 1 mm)
Humidity range	<80%, non-condensing

Dimensions:

Total system, including vibration isolation table	60 in. W x 34 in. D x 57 in. H
Vertical resolution	<1 \AA Ra

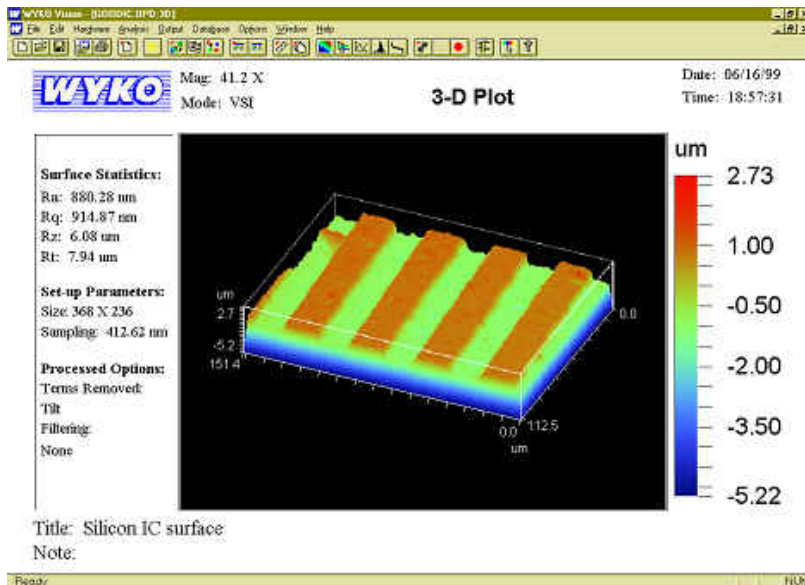
Power requirements:

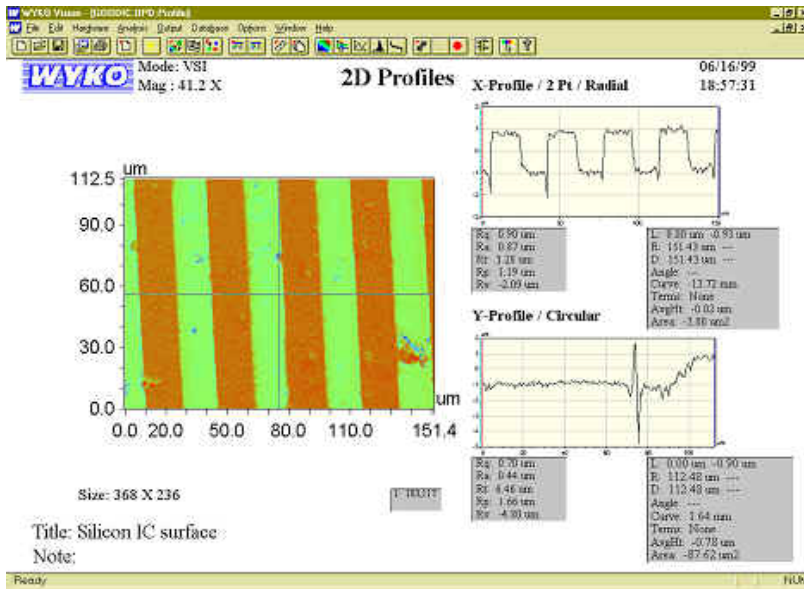
Input voltages	110 / 220 VAC, 60 / 50 Hz
Power consumption	300 W
Compressed air	Range 40 to 80 psi

Photographs:

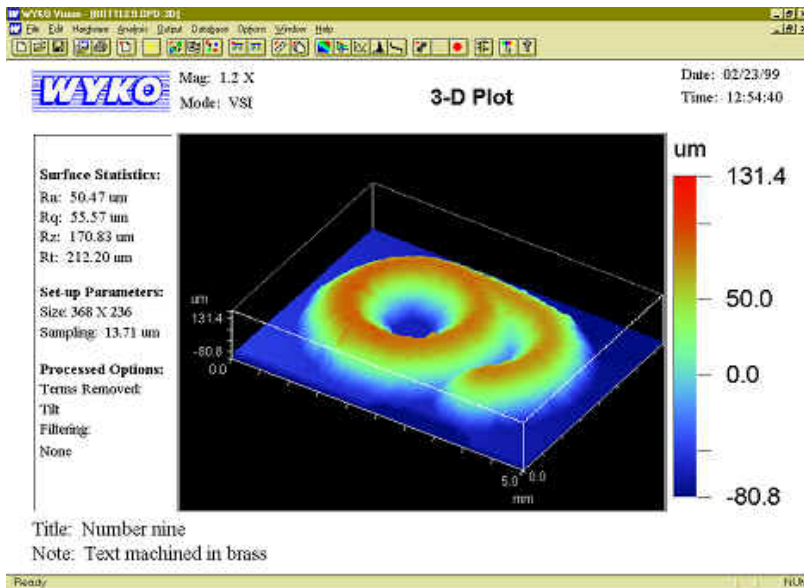


A huge variety of contract measurement jobs have been undertaken using the RST. These include measurement of; heater mats from the leading edge of helicopter rotor blades to prevent ice formation; wear in moulds used in the biscuit-manufacturing industry; miniature optical switch housings for fibre-optics; friction surfaces on clutch plates and brake pads; surface characteristics of lunar rock samples; mirror finish rollers for float glass production and the paper-manufacturing industry; wear on artificial human joints; surface finish of grinding wheels, machine tools and abrasives; thin film thickness. Some Example Measurements are given below. The first example is a 3-D plot showing the Silicon tracks from an integrated circuit after the hermetic sealant has been removed.





The same Silicon I/C object, but in 2-D view mode; Showing cursor profile capability. Standard surface statistics such as Ra, Rq, Rz, Rt are output automatically and many others may be produced. A full range of analysis options are also available using the 'Vision' software package, from data interpolation to complex frequency analysis and digital filtering.



Quite a 'large' object this time. The numeral '9' machined in brass (approx 5mm x 4mm) and shown in 3-D inverted form.

The Wyko Corporation was formed in 1984 by [Jim Wyant](#) and Chris Koliopoulos. Wyko was acquired by [Veeco Instruments](#) in 1997, who now market surface profiling products - the latest version is called the NT98000. In GERI Dr. Bruno Josso performed his Ph.D. research on surface characterisation using wavelet techniques using our RST Plus. It has also been used to measure fretting wear in roller bearings in the EUOFRET project.



Artisan Technology Group is your source for quality new and certified-used/pre-owned equipment

- FAST SHIPPING AND DELIVERY
- TENS OF THOUSANDS OF IN-STOCK ITEMS
- EQUIPMENT DEMOS
- HUNDREDS OF MANUFACTURERS SUPPORTED
- LEASING/MONTHLY RENTALS
- ITAR CERTIFIED SECURE ASSET SOLUTIONS

SERVICE CENTER REPAIRS

Experienced engineers and technicians on staff at our full-service, in-house repair center

*InstraView*SM REMOTE INSPECTION

Remotely inspect equipment before purchasing with our interactive website at www.instraview.com ↗

WE BUY USED EQUIPMENT

Sell your excess, underutilized, and idle used equipment. We also offer credit for buy-backs and trade-ins. www.artisanng.com/WeBuyEquipment ↗

LOOKING FOR MORE INFORMATION?

Visit us on the web at www.artisanng.com ↗ for more information on price quotations, drivers, technical specifications, manuals, and documentation

Contact us: (888) 88-SOURCE | sales@artisanng.com | www.artisanng.com