

ACCESSORIES



3 AXIS POSITIONER

Code: 2400

This positioner makes the loading and unloading of the piece easier because it runs along the special guide obtained in the PCS 200's base.
The positioner has three degrees of freedom:
-Translation along X and Y
-Rotation around the Z axis (for cylindrical pieces alignment)



4 AXIS POSITIONER

Code: 2401

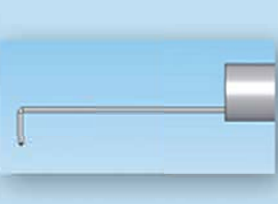
Similar to the 3 axis positioner, it has an additional degree of freedom that allows the tilting of the piece.
The positioner has four degrees of freedom:
-Translation along X and Y
-Rotation around the Z axis (for alignment of cylindrical pieces)
-Tilting along X (inclination of the pieces)



VICE

Code: 3403

This accessory simplifies the piece's clamping and is already arranged to be hung to the 3 or 4 axis positioner. The precision vice is made of steel and it is ground on all sides; jaw width 60 mm, opening up to 42 mm.

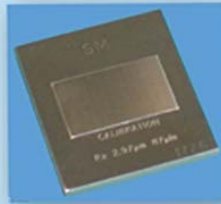


PROBES

All the probes are interchangeable to ensure high flexibility in all measuring conditions.

Standard probe (measure Z range 3 mm) Code 2.500
Probe with 5 mm on measure Z range Code 2.501
Probe for little hole Code 2.502

It is also possible to order special tips for satisfying all measuring needs.



ROUGHNESS SPECIMEN

To guarantee the metrologic accuracy a complete range of roughness specimens are available for the machine calibration control. The values available are:

Ra 0,10 μm Code 6.100
Ra 0,50 μm Code 6.101
Ra 1,00 μm Code 6.102
Ra 2,97 μm Code 6.103
Ra 6,00 μm Code 6.104

TECHNICAL DATA

Unit system	Millimetres and inches
Evaluation length	0.15 mm - 120 mm (0.006 in - 4.72 in)
Column	Positioning column of 320 mm (12.6 in)
Range of measure	3 mm (0.12 in) or 5 mm (0.2 in)
Sampling interval	0.5 μm (0.02 μin)
Axis Z resolution	0.1 nm (0.004 μin)
Positioning speed	0 - 10 mm/s (0 - 04 in/s)
Measuring speed	0.25 - 0.5 - 1 - 2 mm/s (0.01 - 0.02 - 0.04 - 0.08 in/s)
Radius of tip	Diamond cone angle 60° radius 2 μm (78 μin)
CNC Cycle	Automatic measuring and positioning CNC cycle with autocomparing function
Connection type	USB interface for connecting to Windows® PC
Software	Profile Studio with roughness analysis library
Software languages	English, Italian, French, German, Spanish, Portuguese and Slovak
Dimensions LxDxH	1100 x 570 x 720 mm (43.3 x 224 x 28.3 in)
Total weight	50 kg (92 lbs)
Power supply	110-240V 50-60 Hz
Working temperature	15 - 25 °C (59 - 77 °F)

STANDARD AND CALCULATED PARAMETERS

ISO 4287:97	Rp, Rt, Rv, Rc, Rz, Rzjis, Ra, Ra75, RSm, RΔq, Rsk, Rku, RΔc, RPc, RmrRel Wp, Wt, Wv, Wc, Wz, Wa, Wq, WSm, WΔq, Wsk, Wku, WΔc, WPc, WmrRel Pp, Pt, Pv, Pc, Pz, Pa, Pq, PΔSm, Pq, Psk, Pku, PΔc, PPc, PmrRel
ISO 13565:96	Rk, Rpk, Rvk, Mr1, Mr2, A1, A2
DIN 4768:90	RyS, Rmax, R3z, R3zMax, PtDIN
ISO12085	Pt, R, AR, Rx, Wte, W, AW, Wx, Rke, Rpk, Rvke
VDA 2007	WD, WΔc, WΔt, WΔSm



Metrology Systems



CIENTEC

RugoProfilometer
RT120

The best way to measure



Can the control of a part be more difficult than its construction? We think not!

The RugoProfilometer **RT120** is the summary of this idea: ease of installation both in production environments and in metrology laboratory, high versatility and accuracy to be always confident of the results.

Until now, has the joint analysis of profile and roughness been too expensive and complex? No longer with the new **RT120**

Top 10 reasons to choose the RugoProfilometer RT120

Flexibility

Ability to perform automatic measurement cycles and autocomparing measurements in series

Robustness

Base in granite that combines high toughness elevated wear and scratch resistance plus metrological stability during the measurements.

Interchangeability

Wide range of interchangeable probes that can be changed directly by the operator

Storage

The measurements can be saved to a file or to the database internal to the software

Connectivity

USB interface to the PC and only one cable enabling immediate use and measuring



Reports

Ability to save and print many personalized measurement reports

Adaptability

Measuring range of 3 mm in Z extendable to 5 mm and 120 mm in X

Measuring accuracy

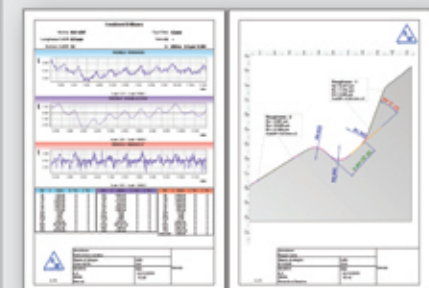
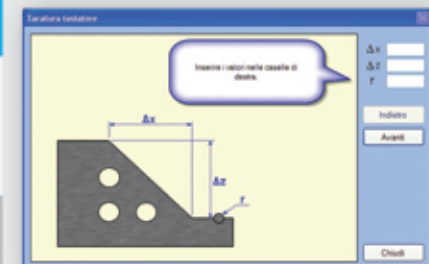
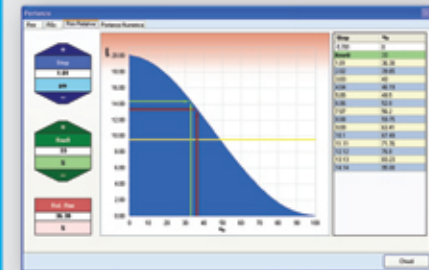
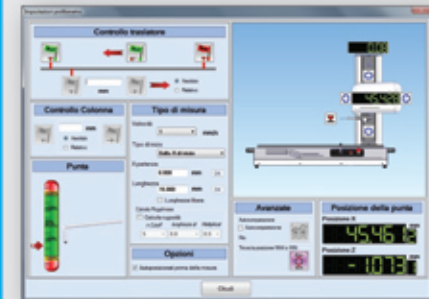
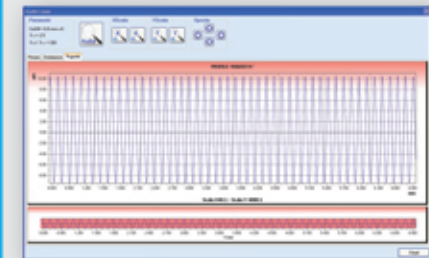
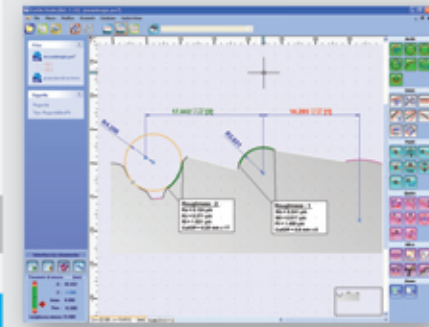
Nanometric internal sensors with a resolution of 0,1 nm0 (on 3 mm range) to ensure the most accurate and reliable result

Ease of use

Windows® software with wizards for complex operations (calibration, search maximum and minimum)

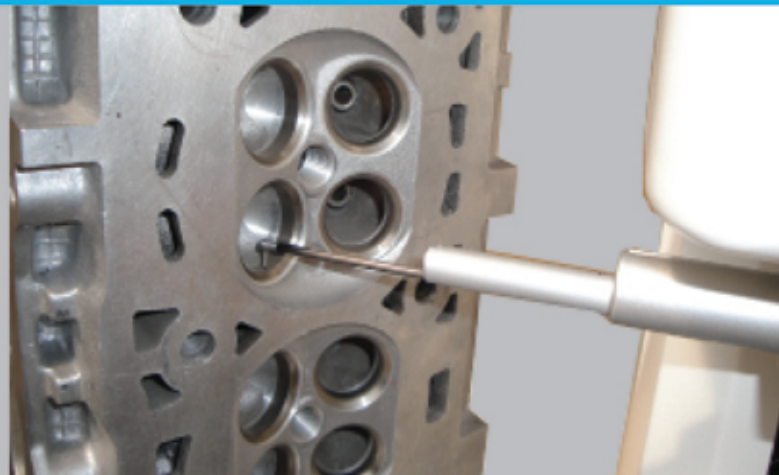
Versatility

More than 70 roughness parameters calculated which belong to 4 different standards



RT120 Code: 2.100

The new RugoProfilometer **RT120** lets you make measurements that belong to worlds that were not associated in the past: the macro and micro surface geometries analyzed with one instrument and in a single measurements. Following the "all in one" logic, the RT120 is ready to measure in few steps so in a very short time the user is able to make roughness and profile measurements even on the most complex pieces using the Profile Studio analysis software that is designed to be intuitive and easy to use. The functions necessary for the characterization of the profile and roughness are grouped in the right tool-bar and these are divided into families each presenting a different colour; on the left there is the tree of acquired measurements and also the interface used to control the instrument (tip's position, measurement settings, calibration). The CAD is a highly advanced: all entities are dynamic and modifiable after insertion.



On an acquired profile it is possible to insert dimension and roughness analysis that coexist in the same screen, ensuring the complete evaluation of the part with just one measurement. With the autocomparing function you can rebuild on a new profile all entities and tolerances present in a reference. In this way it is easy to save a lot of time in the lot pieces control. The software Profile Studio integrates a database that allows you to archive orderly the measurements guaranteeing the traceability of the single part through the code and the production lot. It is also possible to do statistical analysis on the data uploaded inside the database like calculated standard deviation, mean, maximum and minimum value and displaying the distribution graph and the trend of values. The roughness parameters are elaborated following the most recent standards such as ISO 4287, ISO 13565, ISO 12085, VDA 2007 for a total of more than 70 parameters calculated.