

Form Talysurf® i-Series

A high resolution instrument range offering
automated surface and contour inspection



The Form Talysurf i-Series

A high range high resolution system for contour and surface finish measurement

Ideally suited for automotive, bearings, gears and many other applications

Surface and Contour in One

The Form Talysurf i-Series is a high accuracy instrument range capable of simultaneous surface finish and contour measurement. The system's low noise axes and high resolution gauge ensures measurement integrity with choice of gauge ranges providing versatility for a variety of applications.

Reproducible measurement results

Decades of experience, ultra precision machining expertise and FEA optimized design combine to provide low noise and near flawless mechanical execution of the measuring axes. Further enhancement via the use of traceable standards and exclusive algorithms effectively eliminates instrument influence from the measurement results.



1 2 5

Gauge

Gauge Range
Up to 5 mm

Resolution
Down to 0.4 nm



Roughness

Noise
Less than 6 nm Rq



Contour

LS Arc Measurement
Less than 3.3 μm

Pt Less than 0.25 μm



Temperature

Temperature compensation
ensures consistent system
performance

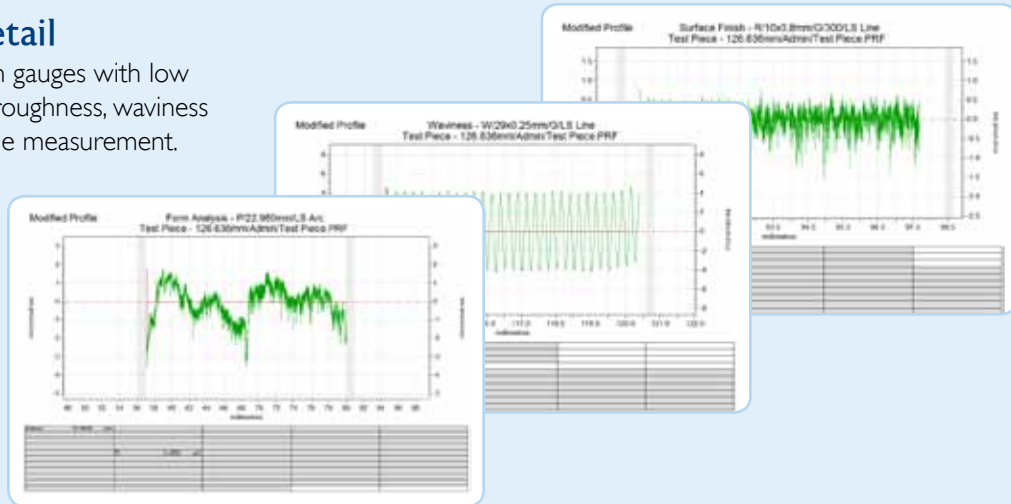
Unparalleled measurement capability

Surface finish, Contour and 3D

1

Surface detail

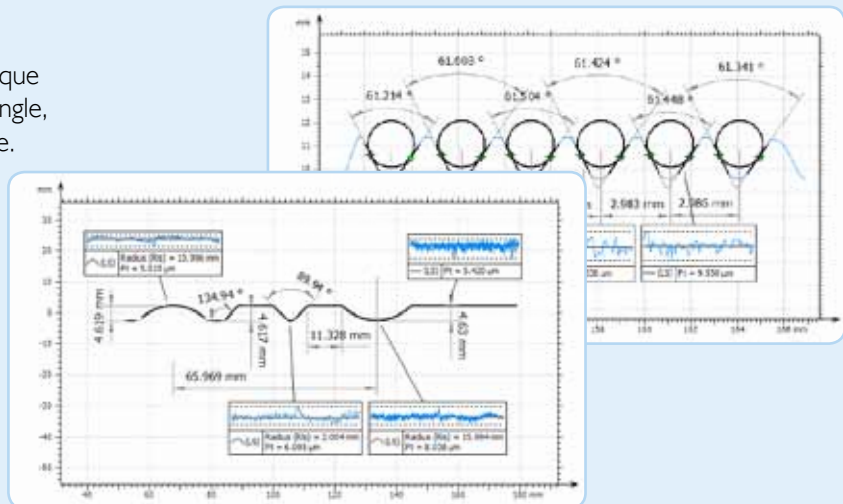
High resolution gauges with low noise enables roughness, waviness and form in one measurement.



2

Contour

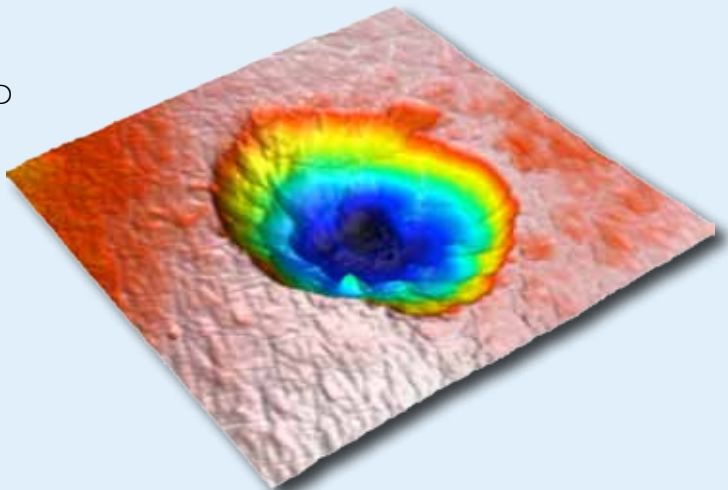
Our patented calibration technique enables measurement of radii, angle, height, length, distance and more.



3

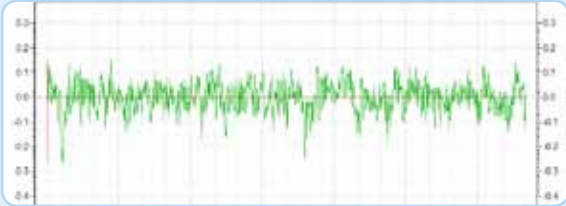
3D

Using an optional motorized Y-stage and Talymap, transform your conventional 2D measurement in to a 3D analysis tool.

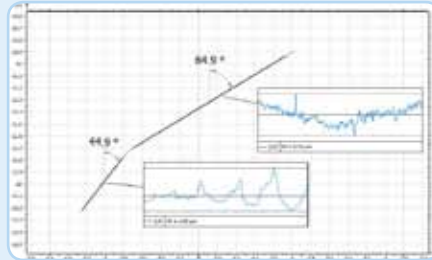


Applications

Cylinder heads



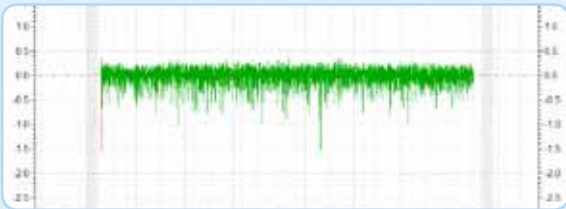
Valve surface finish



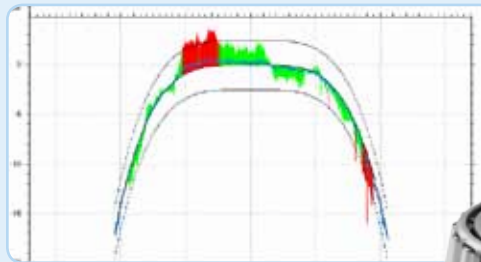
Valve angle



Roller bearings



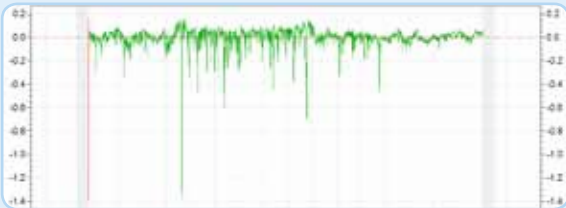
Surface finish



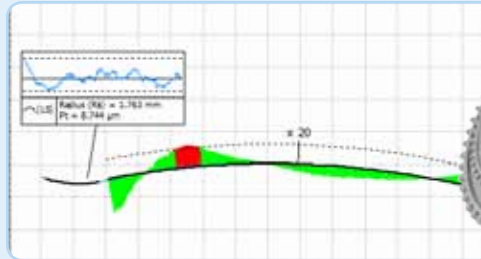
Form error and DXF comparison



Gears



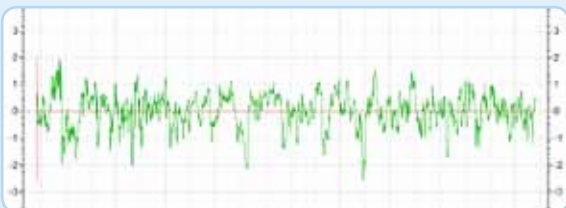
Surface finish



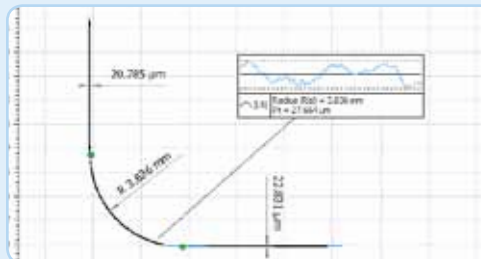
Root radius and form deviation



Crankshafts



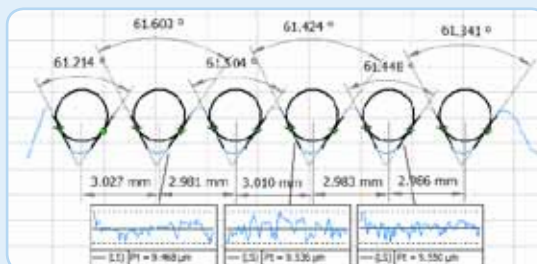
Surface finish



Fillet radii and DXF comparison



Ball screw



Pitch, angle, form and Linear dimensions



Serving a global market

Taylor Hobson is world renowned as a manufacturer of precision measuring instruments used for inspection in research and production facilities. Our equipment performs at nanometric levels of resolution and accuracy.

To complement our precision manufacturing capability we also offer a host of metrology support services to provide our customers with complete solutions to their measuring needs and total confidence in their results.

Contracted services from Taylor Hobson

Sales department

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- **Design engineering**
special purpose, dedicated metrology systems for demanding applications
- **Precision manufacturing**
contract machining services for high precision applications and industries

Service department

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- **Preventative maintenance**
protect your metrology investment with an Amecare support agreement

Centre of Excellence department

Email: taylor-hobson.cofe@ametek.com

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- **Inspection services**
measurement of your production parts by skilled technicians using industry leading instruments in accord with ISO standards
- **Metrology training**
practical, hands-on training courses for roundness and surface finish conducted by experienced metrologists
- **Operator training**
on-site instruction will lead to greater proficiency and higher productivity
- **UKAS calibration and testing**
certification for artifacts or instruments in our laboratory or at customer's site



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