PROSCAN 2000
A NON-CONTACT PROFILOMETER WITH PEDIGREE FROM SCANTRON
THREE DIMENSIONAL SURFACE MEASUREMENTS FROM SCANTRON PROVIDE DETAILED SURFACE INFORMATION TO MANY INDUSTRIES FOR NUMEROUS APPLICATIONS.

In today’s highly competitive market, capital equipment must be highly utilised and add value to any process. It is vital to have a return on every investment and measuring equipment is no exception.

Scantron’s Proscan 2000 is a very versatile precision instrument indeed, making it a sought after piece of equipment in any laboratory or quality control area where detailed information about a surface feature is required.

The measurement of surface finish, flatness, step height, surface area and volume of surface defects, the volume and depth of wear of surfaces, thickness measurement, sub-micron radius and cylindricity are just some of the applications for which Proscan has provided an excellent solution.

Measuring the surface roughness of a surface is not a problem I hear you say but what if you want to know the surface finish through any section of the surface or supposing you want a measurement of the surface finish over an area not just a line, maybe the surface that you want to measure is not flat; all these things can be achieved very precisely from just one scan using the Proscan 2000. Best of all, the user can see the surface of the subject in clear three dimensional detail; this can be manipulated with surface filters and displayed with different colour bands, wire-frame and tiling; the measurements taken can be saved with the scan or exported for statistical analysis.

The scan below shows a scanned surface with the surface finish displayed in plan view, cross-section in two planes and a grid view; the results which may be exported are shown overlaid:

Analysis of surface defects is often very informative and can allow production engineers to measure flaws in surfaces that cannot be seen with the naked eye. The volume of the flaws can be measured precisely to five decimal places of a cubic mm.
PROFORM SOFTWARE MODULE

OVERLAYING TWO SEPARATE SCANS

Scantron’s ProForm is a very powerful analysis tool.

ProForm by Scantron, allows the user to compare two scans very accurately and determine the precise difference in volume, maximum height difference and mean height difference, which in the case of wear analysis can be interpreted as the precise amount of wear.

A component is scanned and the scan is saved using Scantron’s own format. The component is subjected to some wear and scanned again.

These two scans are then compared using ProForm. The scans can be zoomed in and distinguishing features may be matched right down to the pixel resolution of the screen, if necessary.

Once a distinguishing feature is matched between the scans of the original and modified sample, this point is fixed using the pivot point tool. Once fixed the user is free to rotate the modified scan over the original to obtain the best fit. A three dimensional view can be toggled to match the two scans and a two dimensional cross-section in the ‘X’ & ‘Y’ axes can be shown to assist in very fine matching. The software can then be used to match three selected areas of the mating surfaces automatically, displaying the accurate resultant difference as a three-dimensional image. Alternatively, the two scans can be manipulated manually, the user having full control of the image in all three axes.

Proscan offers a very practical solution to suit many applications and can replace expensive instruments that have just one specific task. Proscan gets the answers needed quickly and inexpensively and will last for many years with the minimum of maintenance and calibration.

For further information about Proscan 2000 and ProForm or to arrange a demonstration on your samples, please contact Scantron.
APPLICATIONS

RADIUS MEASUREMENT

ROUGHNESS MEASUREMENT

PROFORM APPLICATION: WEAR CALCULATION, DIFFERENCE BETWEEN TWO SURFACES

2D CROSS SECTION

CORROSION IN CARBON SUBSTRATE

SCAN OF COLLAGEN SUBSTITUTE

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