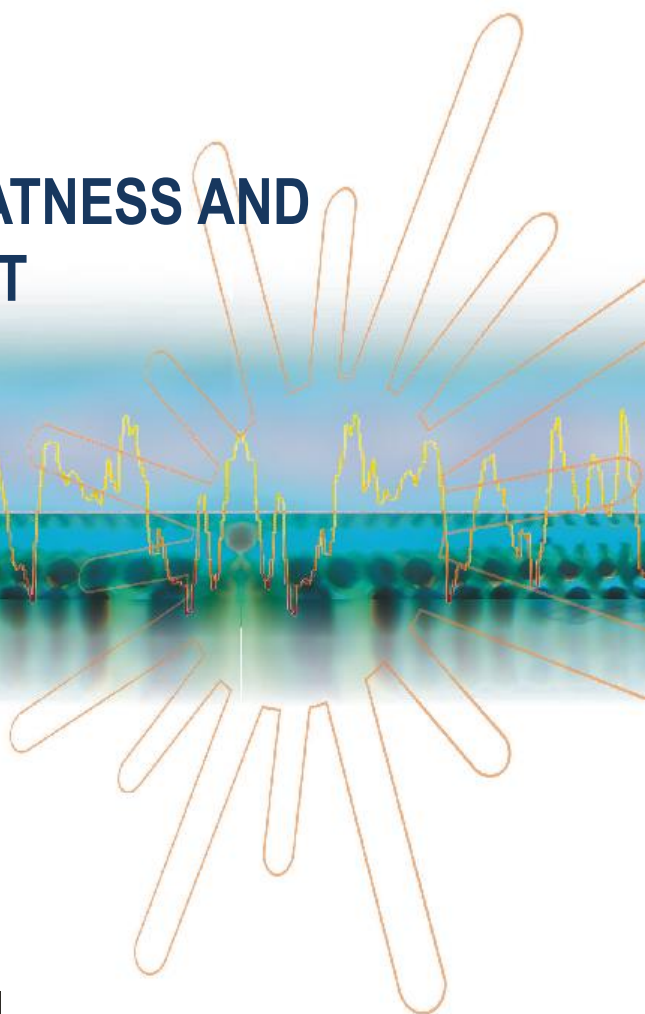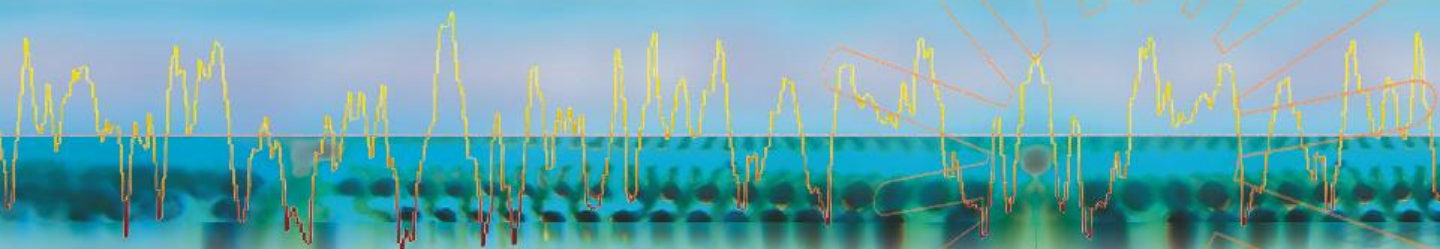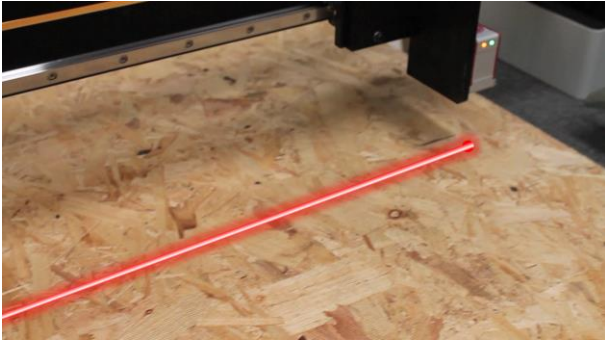# PROSCAN 2D

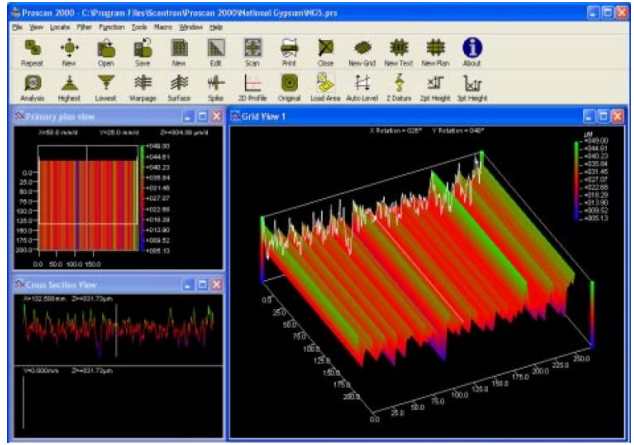## PRECISE NON-CONTACT FLATNESS AND ROUGHNESS MEASUREMENT

DETECTION AND MEASUREMENT OF SURFACE DEFECTS

The Proscan 2D is for precise off-line sample inspection of surface defects that may occur during manufacture of sheet, board and flat products. Even the most diligent manufacturers of gypsum board, plastic cladding or metal sheets can suffer from defects such as ripples that can go undetected by visual inspection. The Proscan 2D enables the quality of the surface to be quantified preventing sub-standard products from reaching your customers.

In addition, it provides useful information about edge taper and board flatness and roughness. Results are displayed graphically with key values shown numerically in the analysis window.

2D and simulated 3D view help visualise the process

QUICK AND EASY USE

Measurements are made by simply loading a sample onto the granite base and selecting the start button. Within just a few seconds the Proscan 2D will make a 800 mm scan across the width of the sample, providing precise data regarding surface quality.
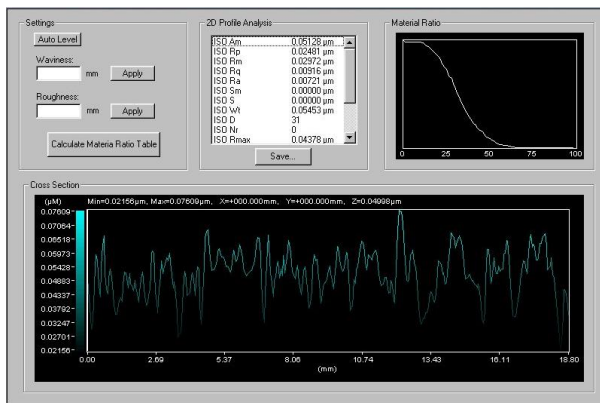
The Proscan 2D arrives equipped with full profilometer software. The 2D cross-section view provides instant feedback on surface finish, while results can be extrapolated into 3D to help the operator to visualise surface defects. Filtering of roughness and waviness allow identification of surface irregularities, with easy-to-use software and clear communication.

Rapid non-contact measurement of flatness and roughness on harsh, jagged surfaces like chipboard becomes simple

Sensor Model	Maximum Measuring Range	Axial Resolution	Lateral Resolution (µm)	Stand-off Distance (mm)	Linearity (% +/- of range)	Technology
S11/03	300 µm	12 nm	1.3 - 2.5	11	0.1	Chromatic
S13/1.1	1.1 mm	25 nm	2 - 4	12.7	0.1	Chromatic
S16/2.5	2.5 mm	75 nm	4 - 6.5	16.4	0.1	Chromatic
S29/10	10 mm	280 nm	8 - 11	29	0.1	Chromatic
S20/20	20 mm	600 nm	8 - 12.5	19.6	0.1	Chromatic
L25/2H	2 mm	0.1 µm	17.5 - 40	25	0.05	Triangulation
L35/10H	10 mm	0.5 µm	25 - 55	35	0.03	Triangulation
L50/20H	20 mm	1 µm	30 - 80	50	0.03	Triangulation
L70/50H	50 mm	2.5 µm	100 - 115	70	0.03	Triangulation

ΣSCANTRON

TECHNICAL SPECIFICATION

Technical Specification	
Scanner Dimensions (w x h x d)	1130 x 600 x 450 mm
Granite table footprint	1130 X 600 X 70 mm
X travel	800 mm
Step Size	1 µm to 10 mm
Data Collection Rate	up to 20 kHz
Max. Scanning Speed	90 mm/s
Retrace speed	100 mm/sec
Electrical Requirements	100-110 or 220-240 V AC, 50-60 Hz

APPLICATIONS

The Proscan 2D provides a full turn-key solution for flatness measurement, edge taper measurement, surface ripple, 'finger cockling', linear roughness measurement, waviness and stress-induced buckling on large sheet and panel products. Eliminate costly customer rejects and site re-work, and provide important information for improving manufacturing process.

SURFACE AND FORM ANALYSIS

- Arithmetic Mean
- Ra - Average Roughness
- Rz (DIN) - Mean peak to valley height
- Rz (ISO) - Ten point height
- Rmax - Maximum peak to valley height
- Rp - Mean peak height
- Rq - Root mean square average roughness
- Rqm - Maximum peak height
- Rvm - Maximum valley depth
- R3z - Mean third peak to valley height
- Wt - Total waviness depth
- Pt - Total profile depth
- Nr - Normalised peak count
- Tpa - Material ratio
- D - Peak density
- S - Mean peak profile spacing
- Sm - Mean peak local spacing
- Lm - Sample length
- Warpage filter removes surface roughness to leave form
- Surface filter removes surface form to leave roughness
- Point editing
- Interpolation
- Radius calculation
- Cross section area calculation
- Contouring

Scantron Industrial Products Ltd

Monarch Centre, Venture Way, Taunton,
Somerset, England, TA2 8DE
Telephone: +44 (0)1823 333343
Facsimile: +44 (0)1823 333684
E-mail: scantron@scantronltd.co.uk
Website: www.scantronltd.co.uk

ΣSCANTRON

TECHNICAL SPECIFICATION