

SmartDENT3D™

3D SCANNING SOLUTION FOR
AIRCRAFT SURFACE INSPECTION



Maintenance, Repair & Overhaul (MRO) experts are facing added pressure to make sure that in-service aircraft are assessed carefully to ensure public safety.

Creaform offers an easy, fast, and accurate NDT solution for 3D assessments of dent damages located on aircraft surfaces. It includes a HandySCAN 3D™ scanner and SmartDENT 3D™ surface inspection software.

This dedicated software is the first on the market to offer 3D visualization. It also provides a guided workflow approach to simplify the measurement extraction of 3D scan data to get exactly the dimensions required for in-service aircraft assessments. The goal is to greatly reduce operators' impact on measurement results and shorten the time to generate final reports. It saves users time and money—without compromising diagnosis results and safety.



1

SCAN

2

ANALYZE

3

REPORT

USER-INDEPENDENT

REPEATABLE RESULTS REGARDLESS OF THE USER'S LEVEL OF EXPERTISE.

TRUportability™

LIGHTWEIGHT, ERGONOMIC AND PORTABLE DEVICE. EASY TO TAKE FROM PLACE TO PLACE AND REACH CONSTRAINED AREAS.

REAL-TIME VISUALIZATION

AS AN OPTIMIZED REMOTE DESKTOP APPLICATION, DATA ACQUISITION CAN BE VIEWED IN REAL TIME INCLUDING COLORMAPS FOR ALL FEATURES.

TRUaccuracy™

PROVIDES RELIABLE, ACCURATE, AND REPEATABLE RESULTS OF 0.025 mm (0.0009 in) IN ACCURACY.

SPEED

80 TIMES FASTER THAN THE PIT GAUGE TECHNIQUE.

COMPLETE SURFACE INSPECTION AND RESULTS

A/W RATIO, LENGTH AND WIDTH MEASUREMENTS, CLOSEST NEIGHBORS, CLOSEST INTERNAL STRUCTURE, MAXIMUM DEPTH AND MAXIMUM DEPTH OF DENT TO CLOSEST INTERNAL STRUCTURE, ETC.

INSTANT REPORTING

ON-SITE RESULTS AVAILABLE IN DIFFERENT FORMAT TO MEET END USERS' NEEDS.

GUIDED WORKFLOW

STEP-BY-STEP PROCESS TO PERFECTLY BRIDGE THE GAP BETWEEN DATA ACQUISITION AND REPORTING OPERATIONS.

TRUsimplicity™

SHORT LEARNING CURVE AND EASY-TO-USE SOFTWARE THAT REQUIRES NO NDT CERTIFICATIONS.

EXTEND THE POWER OF YOUR SmartDENT 3D SOLUTION

Portable Workstation with Wireless Tablet

NDT service companies can count on a complete accessory package especially designed to optimize field efficiency and reduce turnaround times.

Includes:

- Wireless tablet powered by VXremote
- Rugged case with multi-terrain wheels adapted to field environments
- All-in-one transport case that converts into a convenient portable workstation
- Magnetic supports for 3D scanner and wireless tablet



3D Scanner External Battery: A Whole New Level of Portability

Delivering up to four hours of autonomy, the 3D scanner's lightweight external battery facilitates data acquisition. Ideal for short-term projects, it provides total freedom of movement. The external battery is the perfect tool for constrained areas.



VXremote™: Remote Access Software Application

VXremote improves efficiency by providing fast and easy remote access to SmartDENT 3D. The rugged tablet offers quick activation and setup without any hardware. Get SmartDENT 3D's data acquisition functionalities right at your fingertips!



CREAFORM CUSTOMER CARE

Creaform is committed to offering first-class customer service so you can get the most out of your system.

Our multilingual product specialists team will provide you with assistance to answer your immediate needs. Our fleet of leading-edge calibration tools in our service centers gives you local access to faster maintenance service and repair.

Be sure to subscribe to the Customer Care Program to take advantage of worry-free maintenance and global repair coverage for all your Creaform hardware and software. Whether you need to access our latest software releases and knowledge base or require a loaner unit while your device is being serviced, we have a plan tailored to your needs. Gain peace of mind knowing your equipment will get even better with time.



HandySCAN3D™

The handheld metrology-grade portable 3D scanner has been optimized to meet the needs of MRO engineers looking for the most effective surface inspection tools. This fast, easy-to-use, reliable, accurate and portable NDT solution makes it possible to obtain all the information necessary to put back aircraft into service in the shortest time possible.

TECHNICAL SPECIFICATIONS

	HandySCAN BLACK™	HandySCAN BLACK™IElite
ACCURACY	0.035 mm (0.0014 in)	0.025 mm (0.0009 in)
VOLUMETRIC ACCURACY (based on part sized)	0.020 mm + 0.060 mm/m (0.0008 in + 0.0007 in/ft)	0.020 mm + 0.040 mm/m (0.0008 in + 0.0005 in/ft)
MEASUREMENT RESOLUTION	0.025 mm (0.0009 in)	
MESH RESOLUTION	0.100 mm (0.0039 in)	
MEASUREMENT RATE	800,000 measurements/s	1,300,000 measurements/s
LIGHT SOURCE	7 blue laser crosses	11 blue laser crosses (+1 extra line)
LASER CLASS	2M (eye-safe)	
SCANNING AREA	310 x 350 mm (12.2 x 13.8 in)	
STAND-OFF DISTANCE	300 mm (11.8 in)	
DEPTH OF FIELD	250 mm (9.8 in)	
PART SIZE RANGE (recommended)	0.05–4 m (0.15–13 ft)	
SOFTWARE	SmartDENT 3D	
WEIGHT	0.94 kg (2.1 lb)	
DIMENSIONS (LxWxH)	79 x 142 x 288 mm (3.1 x 5.6 x 11.3 in)	
CONNECTION STANDARD	1 X USB 3.0	
OPERATING TEMPERATURE RANGE	5–40 °C (41–104 °F)	
OPERATING HUMIDITY RANGE (non-condensing)	10–90%	
CERTIFICATIONS	EC Compliance (Electromagnetic Compatibility Directive, Low Voltage Directive), compatible with rechargeable batteries (when applicable), IP50, WEEE	



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