

NDT SOLUTIONS

# THE ULTIMATE 3D SCANNING SOLUTIONS FOR SURFACE DAMAGE ASSESSMENT

(Powered by Creaform Integrity Suite)

Corrosion	
Maximum Depth	0.261 in
Effective area RPR (MAOP)	1.89



WATCH PRODUCT VIDEO

**CREAFORM**

**AMETEK**





**HOW CAN NDT COMPANIES ADAPT TO THIS NEW MARKET REALITY?  
HOW CAN THEY FACE THESE CHALLENGES, COUNTER THESE  
DIFFICULTIES, AND MAKE IT THROUGH THIS STORM?**

## SURFACE DAMAGE ASSESSMENT MODERNIZED AND ACCESSIBLE TO ALL NDT INDUSTRIES

With its prominent expertise and credibility earned in the field of metrology, Creaform has developed disruptive solutions for surface damage assessment that are now accessible to all NDT industries. Simply put, Creaform's 3D scanning technologies and innovative NDT software platform offer the solution to these challenges.

Intuitive to learn and easy to use, Creaform 3D scanning solutions involve only a short learning curve and require fewer certifications than traditional techniques. They are also much faster than manual tools, offering rapid field deployment and instant reports directly accessible in the field.

Investing in Creaform Solutions allows NDT service companies to:

- Modernize not only their equipment but also their service offerings
- Counter the lack of skilled labor
- Meet the growing demand for inspection
- Increase their efficiency, therefore becoming more productive and capable of serving more customers with fewer resources
- Acquire new market shares and increase their income

The challenges facing NDT service companies are becoming increasingly prominent. First, these issues exist in a market made up of old, rapidly-aging infrastructure, which causes an increased demand for inspection. Second, there is a shortage of skilled labor as well as the increased departure of retiring experienced technicians, which provokes a drop in service offerings.

This combination of an increase in inspection demands and a decrease in service offerings constitutes a perfect storm for the industry, making it difficult to meet customers' needs.

## OUR PORTFOLIO OF NDT SOLUTIONS AND SOFTWARE

Creaform Integrity Suite™ is a powerful NDT software platform that integrates all analytical functions and tools into an intuitive, user-friendly working environment. Composed of four software modules designed specifically for the NDT industries, Creaform Integrity Suite combines NDT knowledge and market intelligence to raise the quality of analysis and reporting to a higher level.

Creaform 3D scanners bundled with Creaform Integrity Suite form the only technique available on the market that offers metrology-grade accuracy, traceable data over time, as well as human-independent results that eliminate measurement variations and ambiguity in result interpretation.



### UNBEATABLE ACCURACY

- Ensure the highest data quality on digital reconstructions
- Get reliable diagnoses and trustworthy inspection results



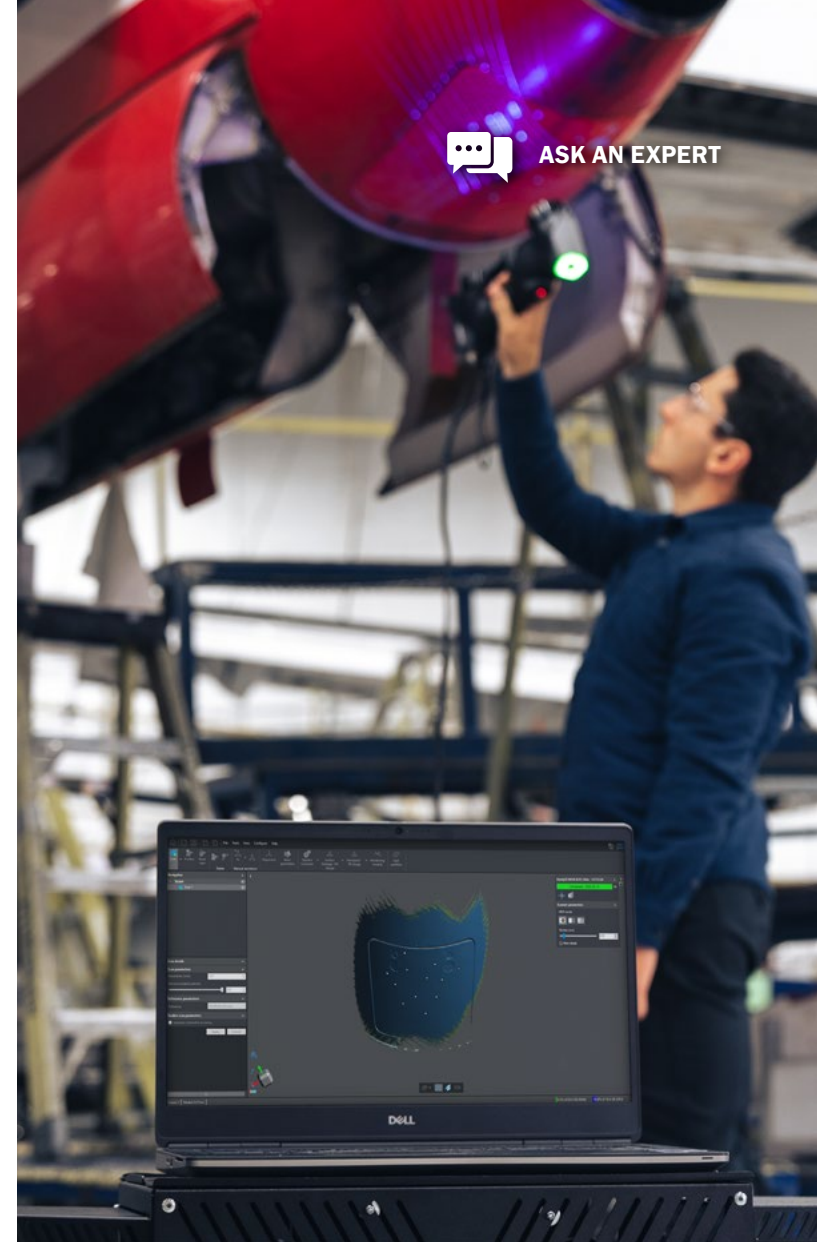
### INFINITELY TRACEABLE DATA

- Follow and compare damage evolution over time
- Establish trends



### MANY USERS, SAME RESULT

- Obtain the same and unique scan regardless of the technician's skills and experience
- Proceed with data acquisition and analysis with little human intervention



ASK AN EXPERT

## WHAT CAN CREAFORM 3D SCANNERS BUNDLED WITH Creaform Integrity Suite OFFER YOU?

### IMPROVE CUSTOMER RELATIONS

Asset owners demand irrefutable diagnoses based on accurate, user-independent data that they can fully trust when making maintenance decisions. Creaform 3D scanners with Creaform Integrity Suite turn you into the NDT service provider capable of finally providing them with the results they can rely on with full confidence.

### REDUCE TECHNICIAN STRESS

NDT technicians are under constant pressure when taking measurements, and they are continually challenged on the results they get with manual tools. With Creaform 3D scanners that supply technician-independent data, you can eliminate result variations and any ambiguity in their interpretation.

### BUILD EXPERTISE WITH HIGH-END TECHNOLOGIES

NDT service companies seek to earn credibility and visibility in the market by establishing their unique and solid expertise and by differentiating their service portfolio. Creaform 3D scanners and Creaform Integrity Suite enable you to gain a competitive advantage with its high-end technologies, as well as acquire new market shares, win new accounts, and increase your income.





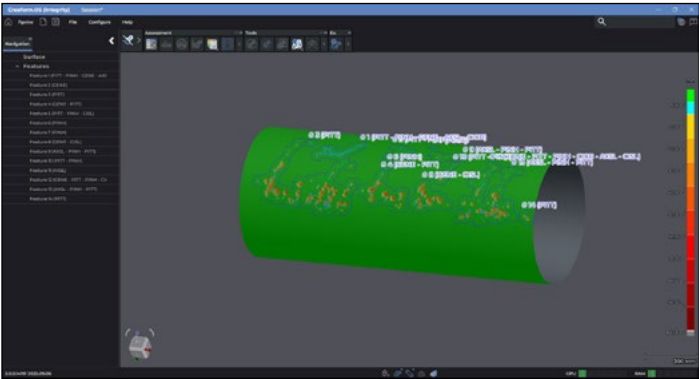
Creaform Integrity Suite

PIPELINE MODULE

Proven NDT Solution for Pipeline Integrity Assessment

Pipeline owners face constant pressure from regulatory authorities and environmental groups to guarantee pipeline network integrity. Despite this pressure, they often base their maintenance decisions on non-traceable and error-prone manual measurements, even though an incorrect diagnosis can lead to severe consequences.

The Pipeline module delivers accurate results and in-depth analyses directly onsite, enabling pipeline owners to establish valid diagnoses and make appropriate repair decisions quickly. This allows them to stick to their budget and schedule, ensure employee safety, and maintain public health and trust.



Corrosion damage on a pipeline analyzed with Creaform Integrity Suite / Pipeline module

KEY FEATURES

- Data analysis and report generation directly onsite, allowing for rapid decision-making
- Peace of mind through accurate, repeatable, and traceable results
- Reduced latency, as pipes are reburied more quickly
- Ability to conserve data over time, making it possible to compare damage evolution
- Prevention of environmental catastrophe
- B31.G, B31.8 R and Psqr compliant
- Offers Level III simulations of a corrosion pipe based on the Finite Element Analysis method

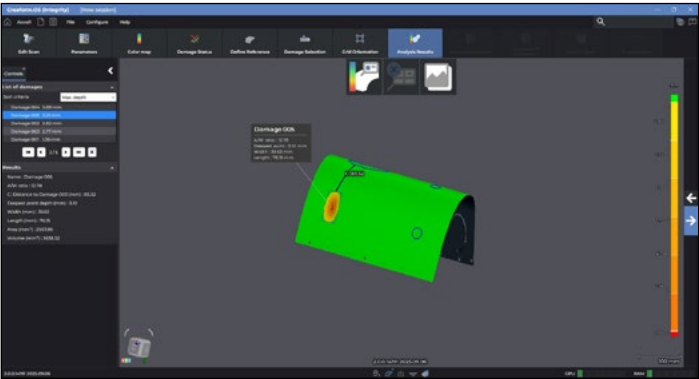
Creaform Integrity Suite

AIRCRAFT MODULE

Fast and Accurate Inspection Solution for Aircraft Surface 3D Assessment

MRO companies, aircraft manufacturers, and airlines that perform NDT inspections for in-service aircraft maintenance face increasing pressure to complete their assessments as quickly as possible without sacrificing accuracy. The problem is that NDT inspections take time and, the longer an airplane is grounded, the more airlines lose money.

The Aircraft module is the first dedicated 3D visualization software on the market designed for aircraft assessment and the characterization of dent damage located on aircraft surfaces. More accurate and faster than traditional methods, the software limits the operators' impact on measurements and shortens the time needed to generate final reports, providing OEMs with comprehensive data on issues that require further analysis.



Dents on the leading edge of an aircraft wing measured with Creaform Integrity Suite / Aircraft module

KEY FEATURES

- Operator-independent measurements
- Algorithm sensitive to the finest detail
- Interaction rule optimized for aerospace, facilitating communication on the extent of damage
- Defect characterization on different aircraft components, sizes, and surface finishes
- Guided workflow approach that simplifies the measurement extraction of 3D scan data and obtains the exact dimensions required for the assessment





Corrosion #1	
Damage depth	4.3 mm 0.125 in
Residual thickness	9.7 mm 0.330 in
Damage length	53 mm 4.606 in

Corrosion #2	
Damage depth	4.3 mm 0.169 in
Residual thickness	9.7 mm 0.381 in
Damage length	53 mm 2.086 in



Nozzle	
Diameter	101.60 mm 4 in
Ovality	2.03 mm 0.08 in
Thickness	12.70 mm 0.5 in

Bending angle	
Angle	3°

Bolts	
Quantity	8
Elongation	0.02 mm 0.008 in
Diameter	25.4 mm 1 in

Corrosion rate	
Corrosion rate	2.03 mm/yr 0.08 in/yr
Comparison years	2018
Thickness	31.75 mm 1.25 in

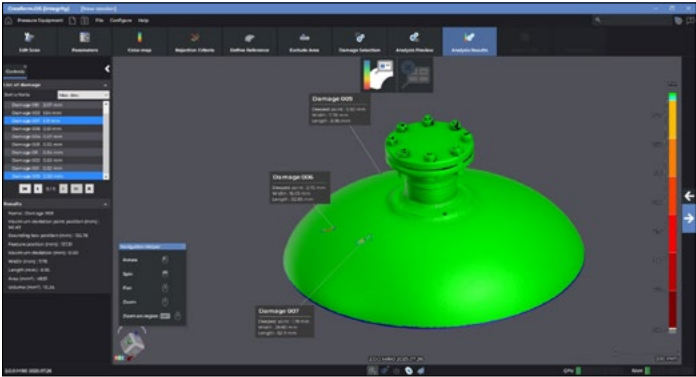
## Creaform Integrity Suite

# PRESSURE EQUIPMENT MODULE

### Proven NDT Solution for Plant and Refinery Integrity Assessment

Plant owners come up against constant difficulties in obtaining accurate and traceable thickness-loss measurements on curved and complex geometries. The current manual techniques are not repeatable enough, as the measurements are too dependent on the technician's skills and experience. Because determining the thickness-loss profile is challenging, safety factors are added, caused by a loss of confidence in the results.

The Pressure Equipment Module delivers absolute measurements of thickness loss—with no possibility of human error—on curved and complex geometries that plant owners can fully trust when making the decision to shut down their plant or refinery for maintenance work.



Corrosion on a tank floor analyzed with Creaform Integrity Suite / Pressure Equipment module

## KEY FEATURES

- Highest accuracy on digital reconstruction
- Technician-independent measurements free from human error at the acquisition stage
- Versatile measurement method for all geometry types, such as spheres, cylindrical heads, tank floors, etc.
- Polyvalent Pressure Equipment assessment for all types of mechanical damages, such as corrosion, dent, and gouge
- Ability to export inspection results into CSV or STL files for further evaluation
- API 579 (FFS-1) compliant

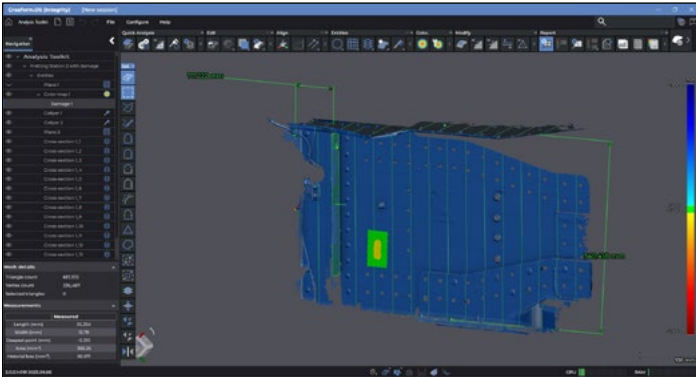
## Creaform Integrity Suite

# ANALYSIS TOOLKIT MODULE

### Comprehensive NDT Analysis Toolkit for Enhanced Inspection and Evaluation

Until now, inspecting defects such as blends, corrosion, and other damages without CAD models has mainly relied on manual tools. The same applies to measuring ovality, bend radius, and other critical dimensions—resulting in limited accuracy, repeatability, and traceability.

The Analysis Toolkit has been designed to empower service companies to seamlessly integrate advanced analysis capabilities into their digital inspection service offering. Creaform's 3D inspection solution stands out among NDT methods by providing the accuracy and data quality necessary to perform detailed evaluations, track changes over time, and compare results across various modules—detecting even the slightest variations in geometry or thickness.



Flange dimensional control and punctual corrosion measured on a pressure vessel head with Creaform Integrity Suite / Analysis Toolkit module

## KEY FEATURES

- Calculation of wear, corrosion, erosion rates, deformation, alignment, and ovality
- Advanced and automatic report generation
- User-friendly metrology toolkit optimized for industrial maintenance applications
- Automated damage dimensioning based on interaction criteria
- Export of IGES and STEP files with seamless transfer to CAD software
- Quick analysis workflow that measures maintenance issues in one click



# WHICH 3D SCANNER CORRESPONDS TO YOUR NEEDS?



**HandySCAN 3D  
BLACK Series™**

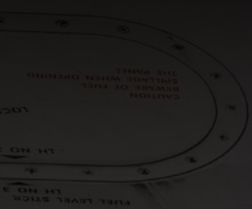


**HandySCAN 3D  
EVO Series™**



**HandySCAN 3D  
MAX Series™**

DISTINCTION	Best Price-Performance Ratio	Future-Proof Evolutive Scanner	Best Scanner for Large Parts
ACCURACY	0.025 mm (0.0010 in)	0.020mm (0.0008 in)	0.075mm (0.0030 in)
TARGET QUANTITY	+	++	+++
PRICING	++	+++	+++
ACQUISITION CONDITIONS	Inside & Outside	Inside & Outside	Inside & Outside
ACQUISITION SPEED	+	++	+++
WORKING DISTANCE	200 to 450 mm (7.9 to 17.7 in)	200 to 750 mm (7.9 to 29.5 in)	300 mm to 2500 mm (11.8 to 98.4 in)



**CREAFORM / AMETEK®**

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