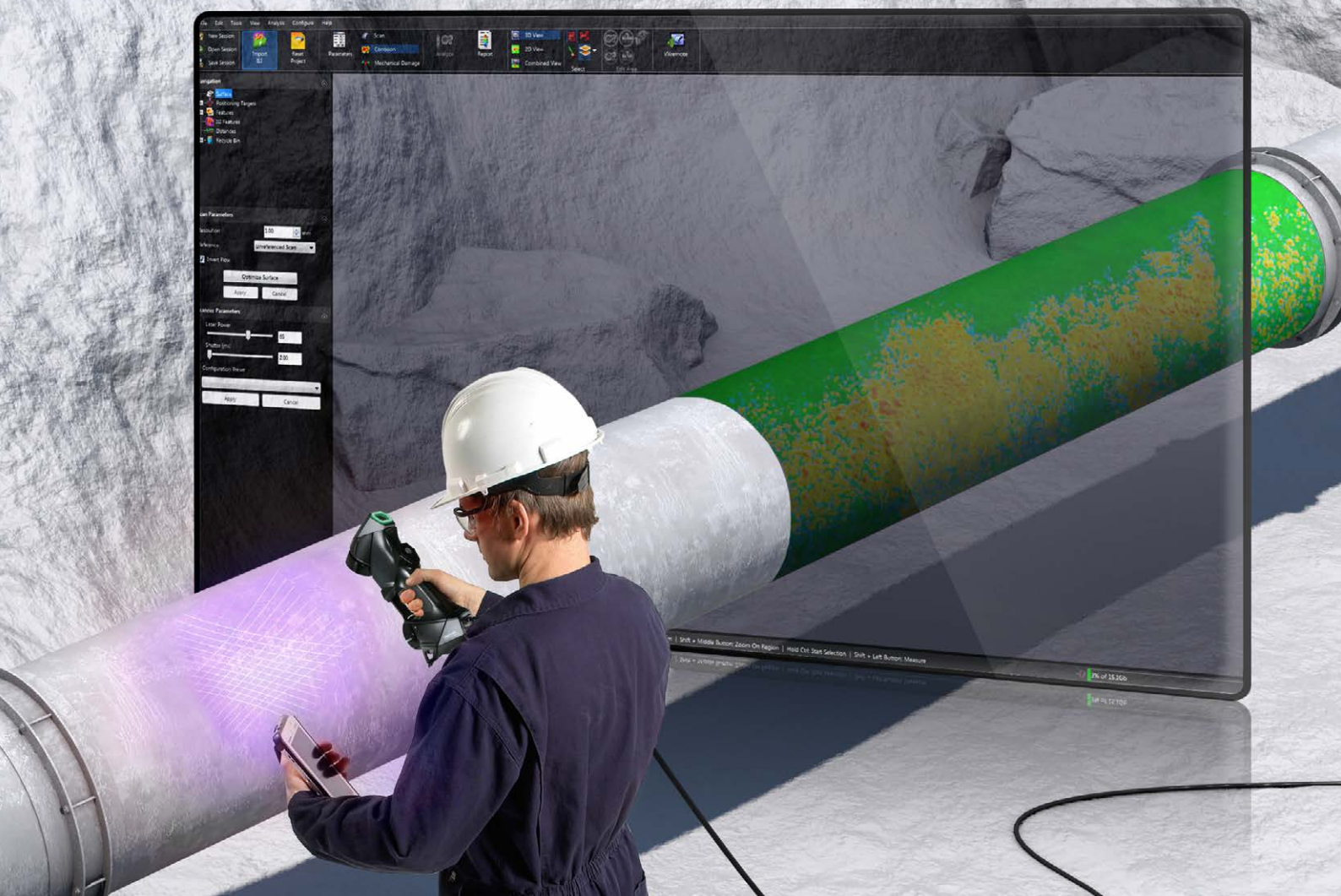
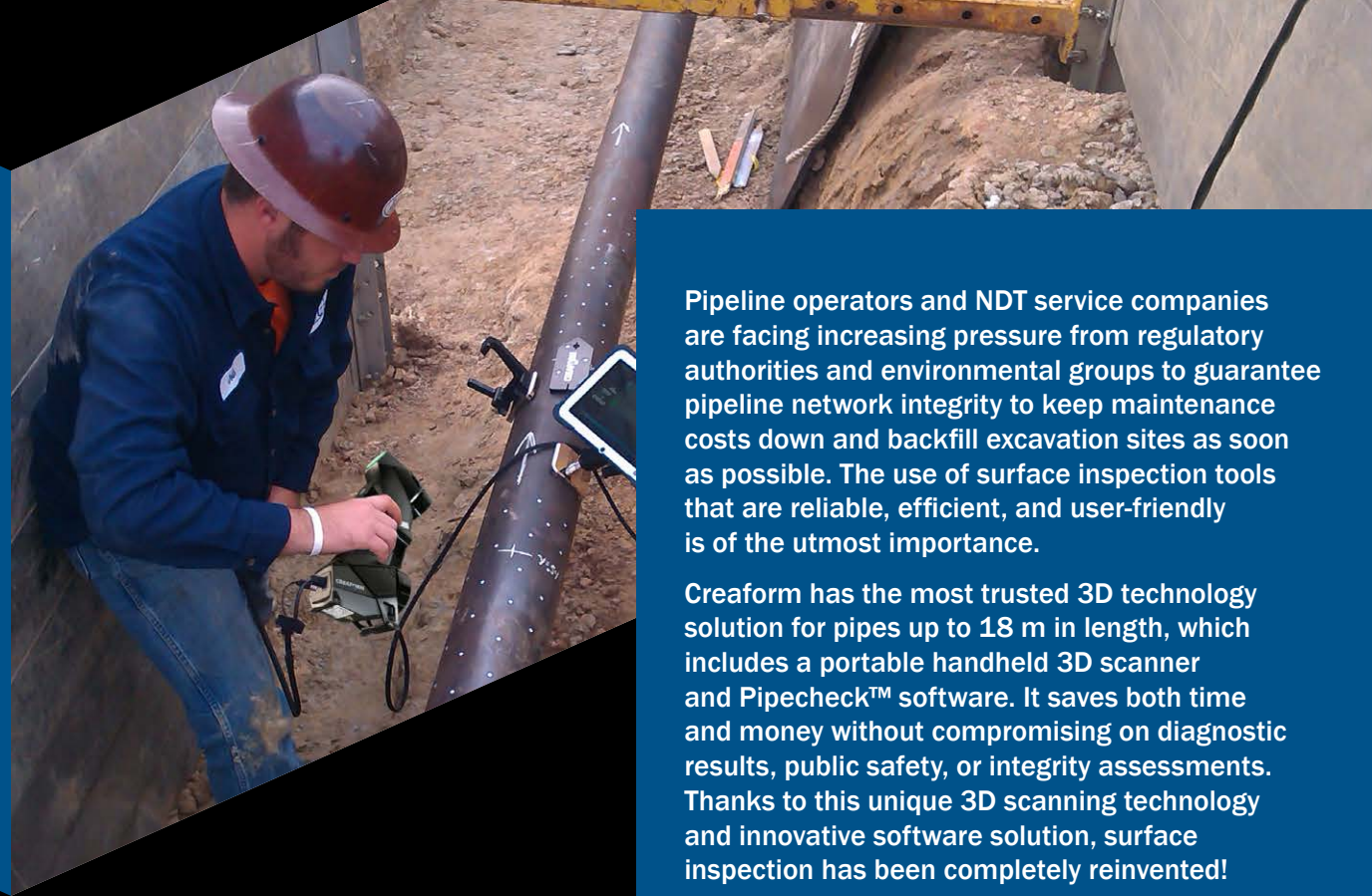


Pipecheck ™



3D SCANNING SOLUTION FOR PIPELINE INTEGRITY





Pipeline operators and NDT service companies are facing increasing pressure from regulatory authorities and environmental groups to guarantee pipeline network integrity to keep maintenance costs down and backfill excavation sites as soon as possible. The use of surface inspection tools that are reliable, efficient, and user-friendly is of the utmost importance.

Creaform has the most trusted 3D technology solution for pipes up to 18 m in length, which includes a portable handheld 3D scanner and Pipecheck™ software. It saves both time and money without compromising on diagnostic results, public safety, or integrity assessments. Thanks to this unique 3D scanning technology and innovative software solution, surface inspection has been completely reinvented!

Pipecheck SOFTWARE MODULES

CORROSION

Pipecheck's corrosion software module offers very fast and reliable data processing that generates instant, on-site results. In comparison with traditional measurement methods, this software offers accuracy and repeatability that are beyond expectations.

MECHANICAL DAMAGE

This software module offers key functionalities that traditional measurement methods cannot offer. It offers unprecedented measurement quality for dents and facilitates the decision-making process if repairs have to be done.

ADVANCED FUNCTIONALITIES

FULL-PIPE JOINT ASSESSMENT

Pipecheck can now assess full pipe joints. It saves time and money by scanning pipes all at once or with multiple HandySCAN 3Ds simultaneously. It enables any NDT service company and pipeline operator to perform pipeline integrity assessments on pipes up to 18 m in length.

CORROSION IN MECHANICAL DAMAGE

Being able to assess material loss depth from a mechanical damage deformation is no longer an unattainable goal. Pipecheck software is the one and only solution on the market to offer unique and sophisticated tools able to extract corrosion depth inside mechanical damage.

STRAIGHTENING OPERATION

Conventional methods for depth measurement (pit gauges) cannot be used accurately since pipe curvature often introduces depth values that do not represent material loss or pipe geometry deformations. To solve this issue—and to improve efficiency and confidence in results—Pipecheck features a built-in pipeline straightening tool. This non-destructive evaluation (NDE) tool uses powerful algorithms that extract the pipe centerline and straighten the full segment. The metal loss or mechanical damage can then be assessed with Pipecheck using the virtual pit gauge tool to report depth readings free of any curvatures.

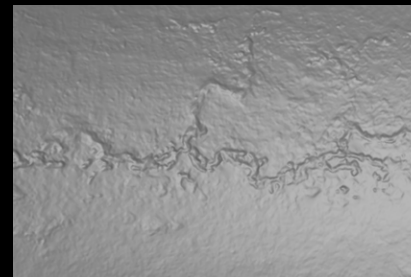
ILI CORRELATION TOOL

In-line inspection (ILI) performance levels can be monitored in Pipecheck by correlating pig data against pipeline 3D scanning and/or imported UT data. The interface has been optimized to compare the depth, length, and width of features in just one click. However, the more pipeline operators accumulate a significant amount of data, the more the correlation results are accurate. ILI determines with more accuracy, which sites really need to be dug up, reducing the number of excavations necessary for direct assessment and repair.

Pipecheck SOLUTION: YOUR BEST ALLY AT ALL STAGES OF YOUR PIPELINE INTEGRITY MANAGEMENT PROGRAM

SCAN

CORROSION



- High-resolution capture of all corroded areas
- Fast surface acquisition to increase efficiency
- Improved scanning performance for small features such as pitting

MECHANICAL DAMAGE



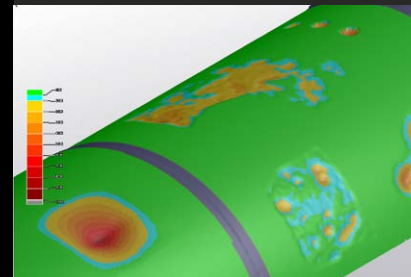
- High-resolution organized mesh file to enhance analysis capabilities
- Fast measurement on any surface finish

ILI CORRELATION

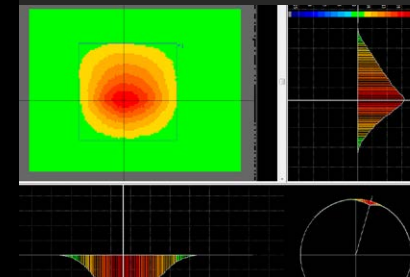


- Highly repeatable measurement independent from operators' skills to increase correlation accuracy
- Improved performance to capture larger areas and extract more accurate statistical trends

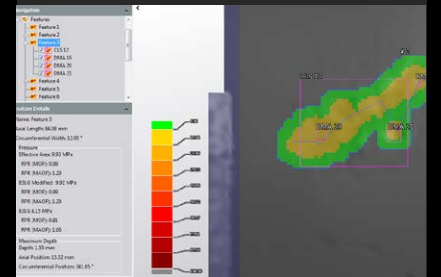
ANALYZE



- Feature detection using real pipe geometry
- Automatically applied interaction rules
- Estimated burst pressure calculations
- Enhanced virtual pit gauge capabilities near welds and obstacles

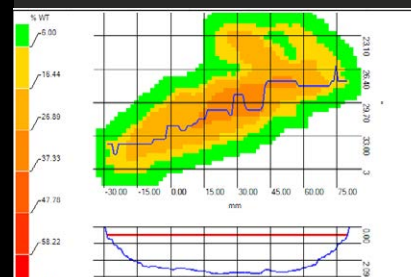


- Automatic maximum depth detection
- Automatic creation of 2D cross-sections in both directions at maximum depth
- Maximum depth measurements using the straight edge technique in both directions
- Shoulder section available

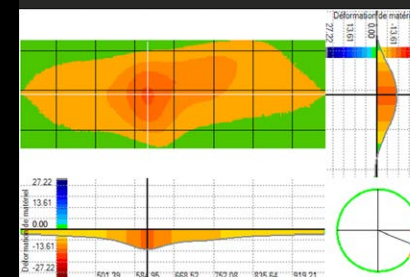


- Automatic match detection through surface overlays and/or manual correlation
- Axial and circumferential offsets for optimal overlay

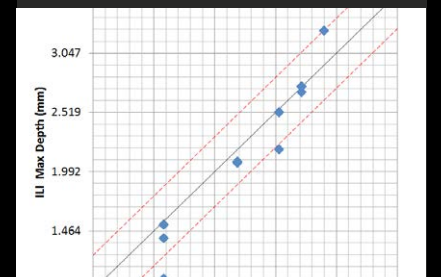
REPORT



- Excel report including worst-case-profile and predicted failure path
- Export to CSV available for further analysis
- Mesh export available
- Customizable pass/fail criteria
- Snapshot tool for 3D reporting



- Cross-section details (axial and circumferential)
- CSV depth grid export
- Mesh export available
- Excel report with ovality measurements (diameter with caliper):
 - Diameter at deepest point
 - Diameter at 90° of deepest point
 - Maximum diameter



- Visual representation of overlay between ILI data and detected features from scanned areas
- Unity chart to assess tool performance for feature dimensions, maximum depth and estimated burst pressure
- List of matched and unmatched features

CREAFORM PORTABLE 3D SCANNERS FEATURE INNOVATIVE AND EXCLUSIVE TECHNOLOGIES

TRUaccuracy™

ACCURATE MEASUREMENTS IN REAL-LIFE OPERATING CONDITIONS

TRUportability™

3D SCANNING WHEREVER YOU NEED TO GO

TRUsimplicity™

VERY SIMPLE 3D SCANNING PROCESS

SCANNING SPEED: 80 TIMES FASTER
THAN PIT GAUGE TECHNIQUE

HIGH-QUALITY RESULTS: ACCURACY
OF 0.025 mm

REAL-TIME VISUALIZATION: WITH
VXremote™, CREAFORM'S OPTIMIZED
REMOTE DESKTOP APPLICATION, DATA
ACQUISITION CAN BE VIEWED IN REAL TIME

USER-FRIENDLY: THE SCANNING
AND ANALYSIS PROCESS ARE INTUITIVE
AND ACCURATE, REGARDLESS
OF THE INSPECTOR'S SKILLS

FULL-PIPE JOINT ASSESSMENT:
PERFORMS PIPELINE INTEGRITY
ASSESSMENTS UP TO 18 m IN LENGTH

IN-LINE CORRELATION:
ASSESS ILI PERFORMANCE
BY COMPARING PIG DATA
AGAINST Pipecheck DATA
TO DETERMINE IF THE ILI DATA
IS ACCURATE OR NOT

**CORROSION DEPTH INSIDE MECHANICAL
DAMAGE:** UNIQUE AND SOPHISTICATED TOOLS
TO EXTRACT CORROSION DEPTH INSIDE
MECHANICAL DAMAGE

TRUaccuracy ON THE PIPE: ENHANCED VIRTUAL
PIT GAUGE CAPABILITIES. PIT GAUGE CONFIGURATION
AUTOMATICALLY ADAPTS NEAR WELDS TO ENSURE
THE MOST ACCURATE MEASUREMENTS

**FOLLOWS CODE
REGULATION
(ASME B31G)**



ON-THE-GO SCANNING: TAKE IT FROM PLACE TO PLACE.
FITS INTO A CARRY-ON CASE. USE IT IN-HOUSE OR ON-SITE.
LIGHTWEIGHT AND SMALL: WEIGHTS UNDER 1 kg AND
CAN REACH CONFINED AREAS.

HandySCAN 3D™ handheld scanners have been optimized to meet the needs of engineers who specialize in pipeline integrity assessment and are looking for the most effective and reliable way to acquire 3D measurements of physical objects.

Creaform's flagship metrology-grade scanners underwent a complete re-engineering, building on their core assets. They are now more portable and even faster at delivering accurate and high-resolution 3D scans, while remaining very simple to use.

The Creaform Pipecheck solution has two different 3D models of laser scanners to choose from, depending on the required level of accuracy.



WHEN ACCURACY MEETS VERSATILITY AND PORTABILITY: INTRODUCING HandySCAN 3D SCANNERS

HandySCAN is your go-to solution to quickly, efficiently and accurately detect material loss and mechanical damage. Take advantage of unmatched reliability to conduct end-to-end pipeline integrity assessments. Only with HandySCAN!

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



THE COMPLETE SOLUTION

INCLUDED

- HandySCAN 3D portable scanner
- Pipecheck software license
- Calibration plate
- Reference arrow with protective case
- 8-m USB 3.0 cable
- Universal power supply
- 4 x 500 positioning targets
- 1-year warranty on parts and labor

OPTIONAL

- Certified laptop computer
- Pipecheck reference part

EXTEND THE POWER OF YOUR Pipecheck SOLUTION

Pipecheck ANALYZE

When all you need is the analysis power of Pipecheck

Offered at a discount price, this software comprises Pipecheck's corrosion and mechanical damage modules for analysis only. It is perfect for projects where assessment is done on-site by a senior technician, while a junior technician focuses on data acquisition. When on-site teams are facing complex cases, analysis can also be done off-site by pipeline integrity engineers. Pipecheck Analyze can open any Pipecheck session, change parameters, reprocess analysis and export a report.



3D SCANNER EXTERNAL BATTERY A whole new level of portability

With 4 hours of autonomy, the 3D scanner lightweight external battery facilitates data acquisition. Ideal for short-term projects, it provides easier-than-ever access to confined spaces when combined with the HandySCAN 3D! Even rope access projects can benefit from this new level of portability.



Pipecheck VIEWER

An unprecedented amount of data available to pipeline integrity engineers!

Pipecheck Viewer offers new demonstration and reporting capabilities. Service companies wanting more information about Pipecheck can request real case studies and visualize the results in 3D. Companies already using the software can provide complete Excel reports displaying the 3D model analysis to all of their customers.



VXremote

Remote access software application

VXremote improves your efficiency in the field by providing fast and easy remote access to Pipecheck. It offers quick activation and setup without any hardware. You can have all its data acquisition functionalities right at your fingertips... Available only with the Creaform certified Rugged Tablet!

CUSTOMER CARE PROGRAM

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

Our multilingual team of product specialists 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 of 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.

METROLOGY AND ENGINEERING SERVICES

Convinced of the quality and possibilities of the Creaform technologies, but not quite yet ready to commit and buy? Know that Creaform offers a wide range of metrology and engineering services. Our experts have earned a worldwide reputation for effectiveness and professionalism. Whether you need their help to perform 3D scanning, quality control, reverse engineering, FEA/CFD simulations, product and tool development or training services, you can count on their commitment to meet your requirements with responsiveness and adaptability.

TECHNICAL SPECIFICATIONS

HandySCAN BLACK™

HandySCAN BLACK™IElite

WEIGHT	0.94 kg	
DIMENSIONS (LxWxH)	79 x 142 x 288 mm	
MEASUREMENT RATE	800,000 measurements/s	1,300,000 measurements/s
SCANNING AREA	310 x 350 mm	
LIGHT SOURCE	7 blue laser crosses	11 blue laser crosses (+1 extra line)
LASER CLASS	2M (eye-safe)	
MEASUREMENT RESOLUTION	0.025 mm	
MESH RESOLUTION	0.100 mm	
ACCURACY	0.035 mm	0.025 mm
VOLUMETRIC ACCURACY	0.020 mm + 0.060 mm/m	0.020 mm + 0.040 mm/m
VOLUMETRIC ACCURACY (with MaxSHOT NextIElite)	0.020 mm + 0.015 mm/m	
STAND-OFF DISTANCE	300 mm	
DEPTH OF FIELD	250 mm	
PART SIZE RANGE (recommended)	0.05 – 4 m	
SOFTWARE	Pipecheck	

FEATURE COMPARISON

Pipecheck

Pipecheck ANALYZE

Pipecheck VIEWER

SCANNING	•		
EDIT SCAN	•	•	
MERGE SCAN	•		
CORROSION INTERNAL ANALYSIS	•	•	
CORROSION EXTERNAL ANALYSIS	•	•	
ILI CORRELATION	•	•	
MECHANICAL DAMAGE	•	•	
PIPE STRAIGHTENING	•	•	
REPORTING	•	•	
VIEW 3D SCAN	•	•	•
VIEW REPORT	•	•	•



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ULTRA PRECISION TECHNOLOGIES

Authorized Distributor

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