

CREAFORM METROLOGY SERVICES

BEYOND MEASUREMENT.





With more than **10,000 metrology services projects** to its credit, **Creaform** has earned a reputation for effectiveness, quality and professionalism. Our experts provide metrology services worldwide **24/7**, with quick turnarounds and under strict quality standards.

The multidisciplinary **Creaform** team of experienced applications engineers and metrologists work very closely with our clients, both big and small, to get a clear understanding of their needs, and they come up with the most effective **3D measurement technologies** and work methods.

Creaform's Metrology Services: skilled people, powerful technologies and quality work.

OUR EXPERTISE COVERS THE FOLLOWING BUSINESS SECTORS, AMONG OTHERS:

MANUFACTURING

AEROSPACE

- Aircraft reverse engineering (structures, engines, fuselage, interiors, VIP interiors, cockpits, production tooling, development assistance, etc.)
- As-built/assembled conditions assessment
- First article inspection (engine parts, aircraft components and assemblies)
- Adjustment and 3D shape analysis of production and assembly tooling
- Production compliance inspection
- Hail and general mechanical damage assessment

POWER GENERATION

- Turbine component alignment
- As-built surveys
- Wear trends analysis
- Performance optimization
- 3D modelling for phased-array inspection
- Turbine component analysis
- Adaptation studies
- Reverse engineering

MANUFACTURING

AUTOMOTIVE AND TRANSPORTATION

- First article inspection (geometric/freeform parts, reflective surfaces, injected plastics, castings, sheet metal)
- Production compliance inspection
- Reverse engineering (aftermarket parts, seats, car body, BIW, competitive analysis)
- Vehicle 3D scanning (BIW, rail cars and tramways, tunnels and stations)
- Tool testing and adjustment (in factory, moulds, jigs, frames and presses)

HEAVY INDUSTRIES / OIL & GAS

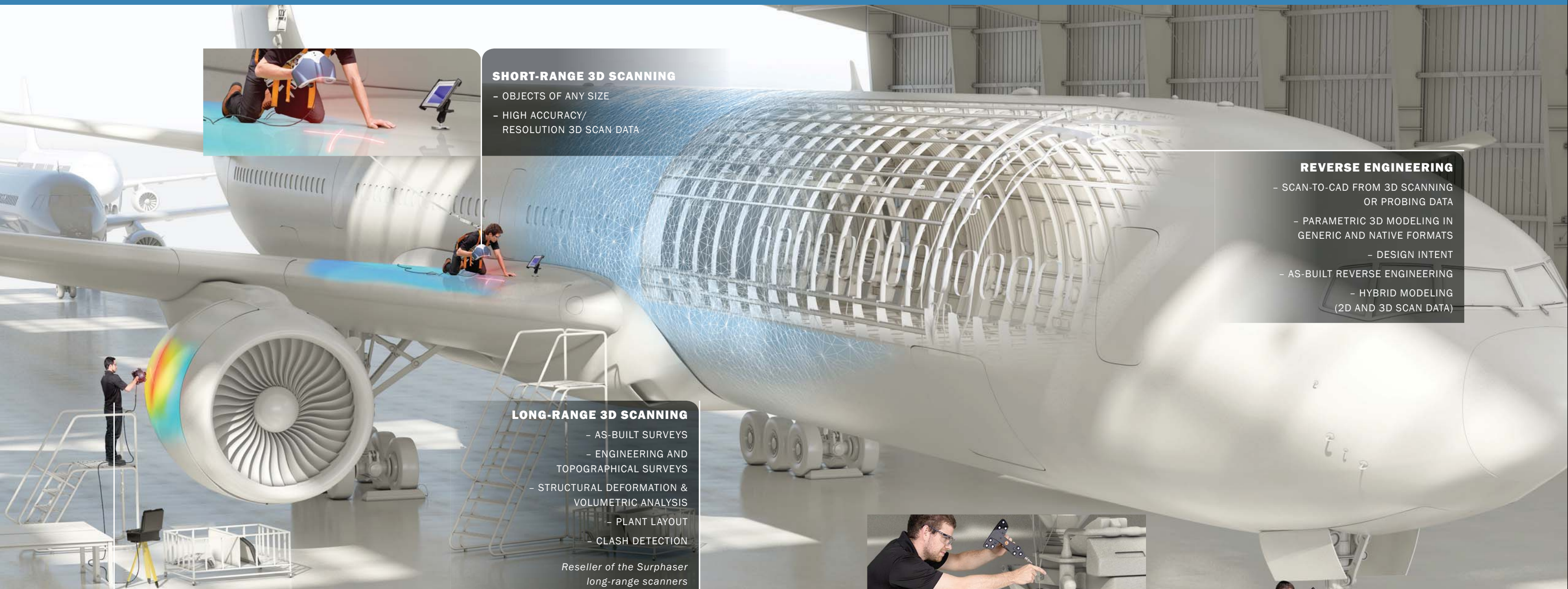
- Wear trend analysis
- As-built surveys and plant layout
- 3D scanning and data processing (corrosion and mechanical damage assessment)
- Storage tank survey (tank strapping table, floor profile, edge & shell settlement, out-of-roundness reports, dike height survey)
- Pressure vessels
- On site assistance
- Method development

CREAFORM METROLOGY SERVICES



SHORT-RANGE 3D SCANNING

- OBJECTS OF ANY SIZE
- HIGH ACCURACY/
RESOLUTION 3D SCAN DATA



LONG-RANGE 3D SCANNING

- AS-BUILT SURVEYS
- ENGINEERING AND
TOPOGRAPHICAL SURVEYS
- STRUCTURAL DEFORMATION &
VOLUMETRIC ANALYSIS
- PLANT LAYOUT
- CLASH DETECTION

Reseller of the Surphaser
long-range scanners

COMPLEX SURFACE INSPECTION

- NON-CONTACT METROLOGY INSPECTION
(3D SCAN-BASED INSPECTION)
- 3D DEFORMATION AND DEVIATION ANALYSIS
- WEAR ANALYSIS
- VISUAL3D REPORTS, PROFILE DEVIATION
COLOR MAPPING, 2D SECTIONS ANALYSIS,
BOUNDARY ANALYSIS
- IN-DEPTH EXPERTISE ON
CHALLENGING ANALYSES



QUALITY CONTROL & DIMENSIONAL INSPECTION

- INDEPENDENT THIRD PARTY ASSESSMENT
- PROBING AND CONVENTIONAL
METROLOGY
- INSPECTION AT THE CUSTOMERS'
PREMISES OR IN ANY ENVIRONMENT
- STATISTICAL ANALYSIS, PROCESS
CAPABILITY, FINAL ACCEPTANCE
INSPECTION
- MACHINE AND FIXTURE MEASUREMENT/
ADJUSTMENT/ALIGNMENT
- GD&T-BASED INSPECTION





TECHNOLOGICAL INTEGRATION

As expert users of advanced portable 3D measurement technologies, we know that seamlessly integrating these tools into your business process is the key to success. The Creaform Metrology Services division is fully committed to fulfill your needs and help you improve your process and maximize your investment. Our knowledgeable production-oriented applications engineers will integrate 3D measurement technology into your work process seamlessly and efficiently.

- Integration of metrology and scanning technologies
- Development of custom software and user interfaces
- Development and implementation of integration strategies
- Creation of application capabilities & specifications manuals
- On-site counselling and integration process

CONSULTING SERVICES

You may be experiencing a work peak, considering extending your service offer beyond your in-house skills, or you may simply need skilled people to fill in for employees during their vacations.

Through its Metrology Services division, Creaform can support and complement your workforce through its experienced applications engineers, optical measurement experts, laser tracker operators and CMM programmers/operators.

- Third-party verification services
- Staffing of CMM operators or off-site programmers
- Measurement services by qualified operators using 3D scanners, portable CMMs, laser trackers or long-range scanners
- Conventional inspection
- Staff outsourcing in reverse engineering



“ I am very pleased with the successful outcome of this 3D scan project. Creaform was successful in establishing a good communication bridge, which enabled an upfront management of expectations and frequent validation of these expectations. The entire Creaform team, both in France and Canada, displayed a high level of professionalism and competency. As Jet Aviation has significantly invested in 3D capabilities to design and build interiors, **Creaform’s technologies will help us to facilitate a higher realization of benefits from these 3D tool investments.** Additionally, from a project perspective, the fact that we have access to reliable data upfront in the project helps in mitigating some of the technical risks and are reliable substitutes to having access to the actual physical aircraft. ”

— Andy YZNAGA,
Manager, Completions Engineering Structures

TRAINING SERVICES

Through the Creafom Campus, we offer training sessions on how to use the Creafom 3D scanners, portable CMM and optical coordinate measuring system. We also provide training on short- and long-range scanners, GD&T, 3D data processing, reverse engineering and quality control/inspection software.

All the Creafom Campus trainers have been certified following a rigorous internal training program. When they are not teaching, our trainers work as applications specialists assigned to actual metrology projects. In other words, they use the measurement devices and software they are teaching about on a daily basis, which makes them acutely aware of their students' needs and challenges.

We offer complete Creafom Campus training packages including theory, written exercises, hands-on practice, manuals and actual measurement parts. The contents and duration of the sessions can be tailored to the specific needs of each client, and training can take place at a Creafom office, at your own place, or at any other venue you choose.

- Basic, advanced, expert sessions
- Theory and practice on clients specific projects and needs
- In-business support
- Certification programs



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