3D MEASUREMENT SOLUTIONS
FOR EDUCATION

CREAFORM

AMETEK®
ULTRA PRECISION TECHNOLOGIES

Although optical technologies are fairly new to the metrology world, it is a hard fact that they are here to stay. Optical measurement technologies are considered by many quality control and design experts to be the future of dimensional metrology, especially when it comes to industrial applications. Creaform brings 3D measurement optical technology products that are highly precise, simple to use, and portable.

3D measurements as well as the Creaform 3D technologies are becoming an essential topic, and thus a growing number of worldwide higher education institutions have been using and teaching them since 2005. Since these institutions want to make sure they are keeping up to date with the latest technologies, they offer their research and teaching staff as well as their students the chance to train on and use this cutting edge equipment.

BENEFITS

Researchers

The Creaform portable 3D measurement solutions are based on optical technology, which brings data accuracy -no matter the environment or user experience- to a level that greatly surpasses conventional portable measurement devices like measuring arms.

As such, 3D optical measuring devices and the Creaform 3D technologies constitute a great asset for researchers needing to use the most advanced technology in the hopes of achieving a breakthrough in their field of specialty.

Educators

One of the Creaform core values is to democratize 3D measurement technologies, and to make them available to the widest number of people possible, with a special focus on the workers of tomorrow – your students.

We know that you take your students' education at heart and that your goal is to prepare them to be the very best that they can be once they join the workforce. Besides, today's technology-savvy kids are eager to learn about innovative and cutting edge technologies. Creaform wants to help you keep them engaged and prepare them for the technological world of tomorrow.

We came up with an Educator Package, which takes your needs into account, as well as the budget limitations that often come with working in educational institutions. Plus, we have developed free teaching manuals on technical topics such as reverse engineering and quality control, which present a complete overview of the related theory, general concepts and best practices.

OUR EDUCATIONAL SOLUTION

CUTTING EDGE TECHNOLOGIES.
OPTICS-BASED PORTABLE 3D SCANNERS, CMM AND COORDINATE MEASURING SYSTEMS.

HIGH QUALITY PRODUCTS.
WORLDWIDE REPUTATION FOR RELIABLE AND CONSISTENT DEVICES.

WIDE PORTFOLIO OF PRODUCTS FOR COUNTLESS APPLICATIONS.
3D SCANNING, TOUCH PROBING AND PHOTOGRAMMETRY DEVICES THAT MEET THE NEEDS OF VARIOUS INDUSTRIES, SUCH AS AEROSPACE, AUTOMOTIVE AND MANUFACTURING.

EDUCATIONAL MAINTENANCE PLANS.
ALL-INCLUSIVE 5-YEAR PLANS, TAILORED TO THE NEEDS OF OUR EDUCATIONAL CLIENTELE.

HIGHER EDUCATIONAL CONTRIBUTION UPON PURCHASE OF SEVERAL SELECTED UNITS.

EASY TO USE AND MASTER.
UP AND RUNNING IN ABOUT 5 MINUTES. REQUIRES NO PREVIOUS EXPERIENCE FROM USER.

HIGH ACCURACY MEASUREMENTS.
ACCURACY REMAINS VERY HIGH NO MATTER THE WORK CONDITIONS OR USER EXPERIENCE LEVEL, WHETHER ON THE FIELD, IN A LAB, OR ON A SHOP FLOOR.

FREE, ONLINE TECHNICAL TEACHING MANUALS FOR EDUCATORS.
PRESENT THE THEORY, BEST PRACTICES AND GENERAL CONCEPTS ON VARIOUS TOPICS. EASY TO INTEGRATE TO THE CURRICULUM.

EDUCATIONAL PACKAGES

For Researchers

We like the idea that our 3D measurement devices – our 3D scanners or our portable CMMs – can make a difference and actually help researchers find ways to make our world better.

Thinking along these lines, we have put together a Researcher package that takes the needs and budget constraints of researchers into account.

The Researcher Package includes:

- An educational contribution on any and all of the Creaform 3D optical and portable measurement technologies
- An additional contribution on our Educational Maintenance Package, comprising:
  - 1-year warranty on parts and labour
  - 5 years of software updates and technical support
  - 2 system calibrations.

For Educators

We know that educators are passionate about their teaching and want the best for their students. We are also aware of their limited financial resources, and this is why we created a very attractive and Educator package that will make our technologies accessible to educators from all horizons.

The Educator Package includes:

- Special educational contribution on selected recertified models[1]
- Multi-units: higher educational contribution on additional units
- You can "mix and match" technologies to fit your needs
- Free online teaching manuals (on reverse engineering and quality control)
- An additional contribution on our Educational Maintenance Package, comprising:
  - 1-year warranty on parts and labour
  - 5 years of software updates and technical support
  - 2 system calibrations.

1 Eligible models are: the REVscan™, the EXAscan™ and/or the VIUscan™ (color) 3D laser scanners, and/or the HandyPROBE™ 780 portable CMM.

WHAT HIGHER LEARNING INSTITUTIONS HAVE TO SAY ABOUT US

FÉLIX LE DANTEC

"I have been training my students on the Creaform 3D scanning technologies since 2007. They learn how to use the EXAscan, the MetraSCAN 3D and the HandyPROBE CMM. They use these tools in practice assignments but also for their study projects. The tools are very well-adapted to our curriculum; we use them for reverse engineering and inspection studies. A short while ago, I've started using them with my second-year students for small projects (introduction to new technologies). Today, we have put together a complete scanning center with various types of technologies."

– *David LE ROY, Professor – Training manager, Professional Diploma in Mechanics, Eco-Conception & Design, Lycée Félix Le Dantec, France*

UNIVERSITÉ LAVAL

"The Creaform portable 3D measurement technologies are used to carry out advanced research in 3D modeling for applications in reverse engineering, CAD, biometrology, biomedical applications and multimedia. These technologies are also used to train undergraduate and graduate students."

– *Denis Laurendeau, Ph.D., eng. Professor, Chair, NSERC/Creaform Industrial Research Chair on 3D Scanning: CREATION-3D, Université Laval*

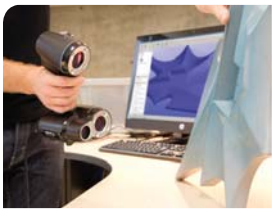
"We purchased a Handyscan 3D scanner with the purpose of educating our students on how laser scanning is used in the precision machining areas, especially in the reverse engineering and quality control areas."

– *Clement Fucci, Head of the Manufacturing Technology Department, Westfield Voc Tech High School*

CREAFORM
PORTABLE 3D MEASUREMENT TECHNOLOGIES

The Creaform 3D measurement solutions can be split into two main categories:

3D Scanning



The Creaform line-ups of 3D scanners have been developed with ease-of-use, portability and accuracy in mind. They generate high accuracy measurements, thanks to proprietary software algorithms that greatly increase data precision. Because they have no mechanical constraint, users can bring and use them virtually anywhere.

We have developed a straightforward data acquisition process that generates very fast results, with real-time visualization and direct mesh output. Our 3D scanners are up and running in less than 5 minutes and require no rigid set-up or particular background from the user. They are so versatile that it is possible to scan parts of virtually any size, material or color.

Probing

Creaform developed a portable probing system designed and optimized to operate in “real-life” shop floor conditions. Featuring the *TRUaccuracy*™ technology and based on optical measurements, the HandyPROBE™ coordinate measuring machine (CMM) will stay accurate even in the presence of changes in the environment such as vibrations, part displacement, set-up or CMM instability.

Since it is arm-free and wireless, the HandyPROBE™ outperforms traditional portable CMMs on the shop floor in terms of data accuracy and freedom of movement. Plus, the HandyPROBE can also be paired with the Creaform MetraSCAN 3D™ scanners to offer scanning capabilities.

STUDY FIELDS AND LEARNING PROGRAMS

SCIENCE AND ENGINEERING

The Creaform technologies are up for the challenge, even in the most demanding engineering applications.

NATURAL SCIENCES AND ARCHAEOLOGY

The portability of Creaform technologies makes them perfect for field work.

APPLIED SCIENCES

Our 3D measurement solutions are perfect for all kinds of hands-on and practical science projects.

RESEARCH PROJECTS

Our devices can be used for anything from 3D data archiving to advanced analysis and reporting.

INDUSTRIAL DESIGN AND STYLING

Our devices can be used at various steps of the development process.

SERVICE CENTERS

Generate profit for your institution by carrying projects for companies from the private or public sectors.

CREAFORM

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