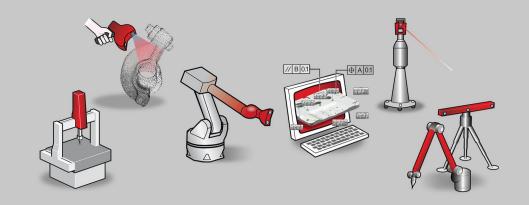
measurement solutions

INSPECTION, QC, DESIGN

REVERSE ENGINEERING



www.measurement-solutions.co.uk

20 YEARS OF RECORD GROWTH

Throughout 20 years of business, Measurement Solutions has become one of the UK's leading suppliers of 3D measuring equipment & software for metrology applications. Whilst the business has grown year-on-year, a significant acceleration in sales in recent years has culminated with 2018 reaching a peak of 37% growth.

The foundations of the company are stemmed in providing best in class products, with best in class service and application knowledge. Recent growth is mostly due to exceptional sales of the Creaform MetraSCAN 3D. In 2018 alone, three of the leading names in Formula One invested six figure amounts, whilst the UK's largest Automotive manufacturer has purchased multiple MetraSCAN systems. The systems are now widely used, with several well-known UK-based manufacturers of automotive, aerospace and heavy machinery investing in this amazing technology.

The company is now looking forward to the future, with early indications that sales in 2019 will once again far exceed initial expectations. To support this expected growth, the recent launch of the all-new range of Creaform hand-held scanners is sure to make a massive impact on the market, changing the way engineers address the challenges of 3D scanning in product design, manufacturing and quality control. Add to that the introduction of the CUBE-R automated robot inspection cell with embedded Metrolog X4 i-Robot, plus the new FG600 flexible gauge, which serve to address the principles of Industry 4.0, and things can only continue to get better for Measurement Solutions.







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Use your mobile device to select the relevant QR Codes for more details



HANDYSCAN BLACK IS HERE!

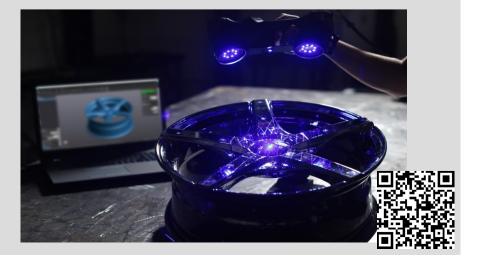
The New Range of Creaform Scanners Sets New Standards in Metrology

The all-new HandySCAN BLACK from Creaform is set to re-define the standards achievable in metrology and 3D scanning.

Launched at an international event in Quebec, Canada, and attended by over 300 representatives from the company and its worldwide reseller network, **HandySCAN BLACK** has already been acknowledged as a "game-changer" within the metrology industry.

The system offers unrivalled levels of accuracy, resolution and data quality, never before seen in a hand-held, completely portable 3D scanner. Unlike other scanning devices, which generate point cloud data requiring additional processing software and manipulation, **HandySCAN BLACK** creates a high quality surface mesh almost immediately, on-the-fly. The surface resolution matches that of the most advanced white-light scanners, once believed to be the only way to acquire high resolution data, while maintaining metrology levels of accuracy beyond that of any other portable device.

Measurement Solutions have been one of the first to witness these incredible new scanners, and already the sales team have demonstration systems available and the first orders have been arriving, such is the impact **HandySCAN BLACK** is having in the marketplace.

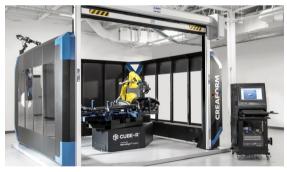


ARE YOU READY FOR INDUSTRY 4.0 ?

2 New Products to Automate your Quality Control Requirements

CUBE-R™ is a fast, reliable, and efficient complete turnkey solution for automated quality control applications.

This automated 3D measuring machine features the latest MetraSCAN 3D-R, a powerful robot-mounted optical 3D scanner that can be integrated into factory automation systems without compromising on accuracy. It is the perfect alternative to solve any



productivity issues caused by bottlenecks at the traditional CMM, enabling you to harness the power of optical 3D measurement & industrial automation to optimize your production cycle and throughput.



For smaller applications, the new FG600 flexible gauge provides a new twist on automated gauging and inspection.

The system is supplied to the customer already pre-programmed and ready to measure, with an integrated touch screen interface for ease of use. This removes the need for measuring routines to be created by experienced programmers. The **FG600** offers a measuring range of 600 x 500 x 450 and the latest 5-axis probing system.

A further twist is that the FG600 system costs as little as £1,000 per month - a fraction of the cost of employing a trained CMM programmer!



measurement solutions













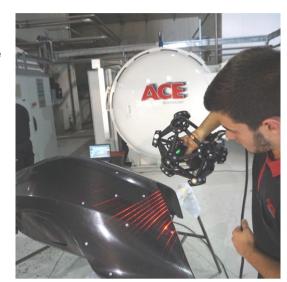
COMPOSITES

REPLACING PORTABLE ARM TECHNOLOGY

Motorsport is a demanding sector, requiring fast manufacturing and the flexibility to implement frequent design changes in as short a time as possible. It is therefore vital for organisations to keep ahead in a highly competitive world, extending capabilities to offer complete solutions.

ACE have done exactly that, by introducing capabilities that make them a Full Service Supplier (FSS), including design and manufacture of pattern & mould tools, jigs & fixtures, etc. These capabilities are complemented by four autoclaves, and a focus on quality control processes to drive excellence during composites production.

ACE Technology was contracted to "composite engineer" a complete LMP sports racing car. Optimising geometry involves first digitising and capturing the existing design or the existing shapes. "It was during such applications that we realised our existing portable arm solution is really not so portable" comments Director Paul Skinner. "Our services often require us to travel across the UK to visit customer facilities, and a large heavy tripod becomes a concern. In addition, mounting an arm inside a vehicle offers two problems; access, and more



importantly the vehicle moves as you enter, hence datums are lost and subsequently all data is useless".

ACE therefore decided to evaluate developments in 3D scanning and also consider new portable technology. After assessing two of the major portable arm suppliers and their respective laser line scanners, they quickly realised that such solutions still had the same limitations as before.

Following subsequent trials carried out using an optical solution based on the Creaform MetraSCAN and HandyPROBE Elite, it soon became obvious that this new technology was able to solve the problems



previously associated with a measuring arm. Edward Smith, who was tasked with trialling different measuring systems, comments "The MetraSCAN provided many benefits compared to traditional measurement arms, such as superior scan speed, manoeuvrability around the object, and consistent accuracy. In particular, the scan quality of mirror-like surfaces and carbon parts were exceptional".

Paul Skinner continued "We actually had MSL come back to visit us twice - we simply couldn't believe how this system was two or three times faster than everything else we had witnessed". As a result of the trials, it didn't take long to make a decision to acquire a system.



EDUCATION

DISCOVER ACADEMIA

Teachers, researchers & students should have access to the latest technologies in order to more effectively prepare engineers and designers for tomorrow's workplace.

Industry advancements wait for no one - not even in education. Creaform ACADEMIA provides teachers with the powerful tools and teaching material they need to provide the hands-on experience students and future employers crave.



ACADEMIA fosters experienced-based learning and development using tools widely used in Industry 4.0, allowing you to enhance your curricula and better prepare students for their careers ahead. With this new educational program, any learning institute can benefit from:

- Multiple professional-grade ACADEMIA 3D scanners
- 50 seats of FREE application software
- 5 years of FREE software updates & support
- Complimentary add-ons and teaching aids tailored to get you started with industrial 3D measurement technologies.





PRODUCT NEWS

HANDYSCAN BLACK: RESETTING THE STANDARDS IN METROLOGY

At a spectacular Global Product Launch held in Quebec, Canada, Creaform 3D amazed over 300 attendees with the launch of the all-new HandySCAN BLACK metrology grade hand-held 3D scanners. Designed to offer speed, accuracy, resolution and ease-of-use that many of the attendees could not have imagined, the new HandySCAN BLACK is destined to be another game-changer in the 3D scanning marketplace.



The HandySCAN 3D started the hand-held scanning revolution in 2005 by introducing scanning technology that did not require a positioning device or fixed tripods and stands. The unique self positioning made scanning quick, easy and above all accurate, even in difficult applications and locations. The latest HandySCAN BLACK moves hand-held scanning to another level, with speed, accuracy and resolution to match all other scanning technologies.

With 2 models available in the range, the flagship HandySCAN BLACK ELITE is unrivalled in specification. The scanner acquires 1.3million pts/second, and can achieve an accuracy of 25 microns. The use of 11 blue laser crosses enables the scanner to acquire data faster, more accurately and to a higher resolution than any other scanners such as white light, portable arms or laser trackers. In addition, the new laser technology means the scanner can easily adapt to surface conditions, meaning shiny parts are no longer a problem and do not require any preparation such as powder sprays.

As one of Creaform's leading resellers worldwide, Measurement Solutions have been one of the first to receive demo units. The sales team have been busy learning the new features of the systems, and are now ready to provide on site demonstrations throughout the UK.

















AUTOMOTIVE

LARGE VOLUME SCANNING FOR VEHICLE RESTORATION

Capture Point is a "bureau" service provider with a difference. Firstly, owner Doug Larkin has over 25 years experience within the Automotive industry, having served at both Land Rover and Aston Martin within Engineering and Design. His experiences cover Studio Design (clay modelling) and associated processes such as surfacing, and design feasibility studies. In addition, Doug has had many years of experience with 3D scanning, and has recently invested in the latest MetraSCAN 3D.

Larkin comments "The **MetraSCAN 3D** solution allows total freedom of movement and offers us unique 'scalability' from just 1 metre up to over 16m³ in volume". This flexibility is vital for a service provider due to the many diverse applications in the Auto, Yacht, Train and Ship Building industries. "Additionally, due to the enormous variety of projects that we encounter, component materials were a major factor in selecting the **MetraSCAN 3D**. We need the capability to take a single product to customers with complete confidence that all materials can be scanned, ranging from shiny or polished surfaces through to matt or gloss black paint. For example, the Classic Car market is very reluctant to apply powder or photogrammetry targets to the painted surfaces. With the **MetraSCAN 3D**, we require none of these".

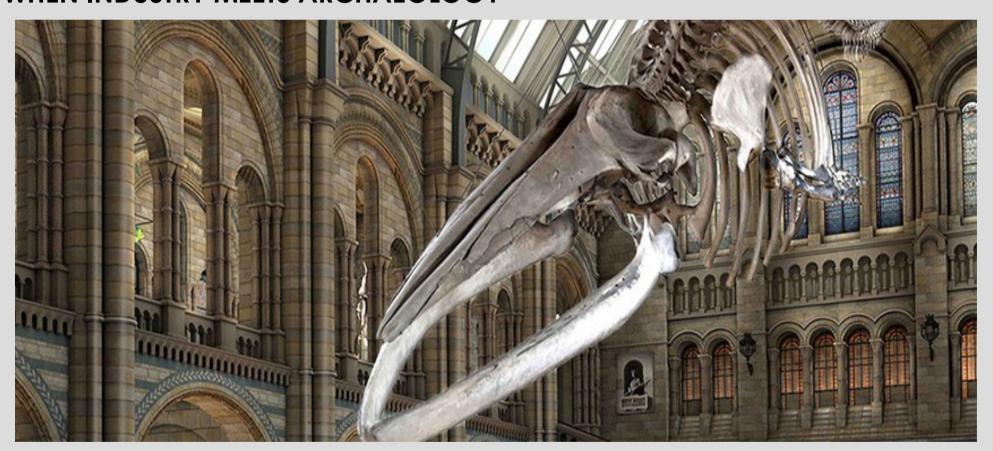


Capture Point recently completed a new "buck"design for a classic Aston Martin DB5 build project. The original intention was to scan half the vehicle and "mirror" the data, but due to the speed of the **MetraSCAN 3D** compared with previous scanning methods, the whole vehicle was scanned in the same time, resolving some previously unnoticed peculiarities in the vehicle design. Using SolidWorks to create the final CAD design, Capture Point manufactured a complete machined buck in-house.



HERITAGE & PRESERVATION

WHEN INDUSTRY MEETS ARCHAEOLOGY



In preparation for exhibiting the blue whale skeleton, scientists from the Natural History Museum's Department of Palaeontology called upon the expertise of Measurement Solutions to assist with 3D scanning of the skeleton components, in particular the huge skull.

Although the museum has recently invested in several 3D scanners, including Creaform's hand-held **Go!SCAN 20** and **Go!SCAN 50**, these are only suitable for items that can ideally be placed on a work-table and make up the majority of the museum's scanning needs, such as the individual bones of a skeleton, fossils, etc. With the blue whale skull measuring in at around 6 metres in length, the scientists recognised the limitations of the technology they had available, and the need for different technologies to deal with the shape and size of the whale's skull.

Our engineers started by laying out a series of small reflective targets on and around the area of the skull using a Creaform MAXshot 3D photogrammetry system. This reference frame enabled the engineers to subsequently scan a large area quickly and accurately, without using spray, and to a resolution that was suitable for the museum's needs. This was achieved using the MetraSCAN 3D hand-held laser scanner, which is able to scan any kind of surface extremely fast, as the lasers automatically adapt to the surface reflectivity and colour. Throughout the scanning process, the engineers fully utilised the Creaform VXelements scanning software. VXelements provides an immediate high quality and optimised STL triangulated surface, so the scientists from the museum could directly see the quality of the scan data they were going to receive, without having to carry out post-processing activities such as cleaning, filtering, best-fit, and surface creation of the point cloud, all of which are extremely time-consuming and labour intensive.

The Blue Whale exhibit, affectionately christened "Hope", is now located in Hintze Hall at the main entrance to the Natural History Museum in London, and is certain to be popular with visitors from all over the World in the years to come.













CASTING, MOULDS & TOOLING

GRAINGER & WORRALL - LEADING THE WAY IN MOTORSPORT INNOVATIONS

If you speak to anybody from the world of motorsport about engines and transmissions, there is one name that is immediately associated with casting design and rapid prototyping - Grainger & Worrall, one of the country's leading specialist prototype aluminium foundries.

The company approaches product development by adding value and delivering successful high integrity precision sand castings for automotive engines, aerospace components and other industrial markets. As part of their drive to staying ahead of the game, Grainger & Worrall recently purchased a Creaform HandySCAN 700.

Although already equipped with traditional gantry CMM's (Co-ordinate Measuring Machines) advanced industrial CT scanning (Computed Tomography) and white light scanning systems, the increasing complexity and persistence to push the limits of possibility has driven a need for both increased capacity and capability. The requirement to spend time preparing surfaces of castings with powder spray, which has always been difficult with projected light scanners, all served to drive their decision to purchase the Creaform HandySCAN 700.

David Lang, who was integral to the decision-making process, comments "The HandySCAN ticks many boxes for us. Not requiring powder spray is an obvious benefit in terms of time savings, both before and after scanning. We were spending several thousand pounds annually on spray, which is an inefficient and unnecessary cost, and add to that the associated costs incurred during the 'shot blasting' process to clean the castings after scanning".

Mr. Lang continues, "After testing the HandySCAN it was obvious to us the 14 laser lines feature allowed



for very fast data capture, with the addition of a single laser line to capture areas within deep pockets. We also found the HandySCAN to be of high accuracy and comparable to our existing equipment".

As is often the case with new technologies, once in process, users get to explore the full benefits on offer. Mr Laing adds "As we assessed the product further, additional benefits came to the forefront. The ability to scan with a 'handheld' portable solution was significant. The fact the HandySCAN and all accessories fit into a small carry case means it is

quick and simple to take the shop floor and start inspecting. Whether it be a large piece of tooling or a sand mould pack being assembled, we can now take the scanner on location, set-up and be finished within the hour. Before purchasing the HandySCAN this task would have been much more challenging and usually resulted in moving components to the Metrology room, which often was impracticable".



NO STONE UNTURNED IN PURSUIT OF EXCELLENCE

CMS Cepcor® Limited is Europe's largest aftermarket manufacturer and supplier of premium quality crusher, screen and asphalt plant spare parts, providing products and services globally to mining and quarrying companies in over 100 countries.

The key to aftermarket success is response time and product availability, two factors which were significant during their decision-making process to purchjase a HandySCAN 700. As a pioneer for new technology and research and development,

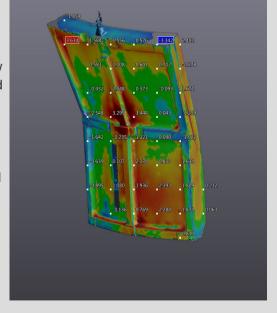
CMS Cepcor® has made significant investments in three portable measuring and scanning arms during the last decade. However, limited portability and scanning capability has resulted in a need to assess new complementary technologies to increase measurement efficiency and usability.

MD Chris Sydenham commented "Although we design and manufacture in the UK, having the ability to take the HandySCAN 700 abroad is a major advantage, as



the whole system is transported in a carrying case no larger than aircraft hand luggage.

During the hardware selection review a dedicated team of engineers tested various handheld and next generation portable arm systems. "The handheld market in particular offers low cost white light solutions which have their appeal" commented Tom Quinzi Design Engineer. "In comparison, the latest generation of portable arms have indeed improved on accuracy, however there are some serious limitations in terms of portability, with heavy tripod stands or magnetic mounting required, and



slow device move procedures on larger objects. "The VXelements suite of products supplied with the HandySCAN has immediately removed our previous pains. The alignment process when utilising multiple point cloud meshes has completely disappeared since introducing the HandySCAN, as we are able to physically move the component mid-way through a scan.

















AUTOMOTIVE

PUTTING LIFE BACK INTO A CLASSIC CAR

The Alfa Romeo Tipo 33/3 is one of only 12 cars made by the Italian manufacturer in the late sixties to compete in the World Sportscar Championships.



Run by works team Autodelta, the car found major success in 1971 at races in Buenos Aires, Sebring and Brands Hatch. It went on to gain a faithful following, even playing a starring role in the movie, Le Mans, alongside Steve McQueen. One of the few remaining Tipos is being run by UK-based Martin Stretton Racing, a leading historic racecar restoration specialist.

Like many race teams and restorers alike, Stretton is faced with a challenge that will only get harder as historic cars become older – the replacement of original parts. Faced with badly damaged parts that have kept the car off the road for several seasons, the team turned to high performance engineering consultancy KWSP, to bring its rare works 1971 Alfa Romeo Tipo back to the grid.

The car's original, naturally aspirated, three-litre V8 engine was in good working order, apart from an engine cover that had deteriorated significantly. As an integral working part of the vehicle's powertrain, the poor condition of the cover had become a major issue. The final straw came when it failed to start. Martin Stretton explains: "This is a rare car – only one of twelve that were made and run by Autodelta – so when we were searching for a replacement cover, the options were extremely limited. We found several alternatives that were close, but none of them were exact matches for our Alfa Tipo 33.3. In the end, we had to explore other avenues."

Using a Creaform **HandySCAN 300**, KWSP scanned the badly corroded engine cover, along with the original water pump and housing. This data was then transferred into CAD for engineering change and manipulation, to create a digital model of the part. Once the company had a finished digital asset, a prototype part was printed overnight in a high-performance thermoplastic, PC ABS. The prototype cover was fitted to the engine to confirm proof of concept, giving KWSP and the customer the confidence to commit to final manufacture.



AEROSPACE / MRO

SmartDENT

Portable Hardware and Software for Maintenance, Repair and Overhaul (MRO)

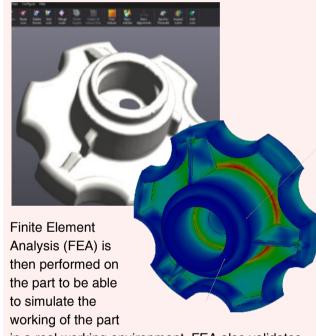


EDUCATION

SCAN 2 PRINT FOR FEA

Dr. Fayyaz Rehman Associate Professor (Mechanical Engineering) at Solent University Southampton explains how 3D scanning can be implemented to increase understanding of component damage and the subsequent processes involved to optimise its design.

A nylon component has been damaged due to incorrect use and excessive torque applied, such that two supporting ribs are broken. In addition, the internal cylindrical face has been sheared and snapped, making this knob unusable. Using a Creaform 3D **Go!Scan20**, the part is scanned at 1mm resolution to create a highly accurate 3D model of the component.



in a real working environment. FEA also validates the design of the part in terms of its structural integrity and suitability for application.

The part is constrained through the internal cylindrical faces, and a torque of 50 NM is applied to the model, which is defined as being from Nylon.

Since the part's factor of safety (FOS) is too high (i.e. the part is very safe and over designed) the part can then be optimised with the goal of minimizing mass subject to constraint of FOS over

1.5. This results in an optimised design with material removed and achieving 37% mass savings from various locations of the part.



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 real-time 3D visualization and analysis of damage to aircraft surfaces. 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.













AUTOMATED INSPECTION

CUBE-R: HIGH SPEED AUTOMATED QUALITY CONTROL (AQC)

For years, manufacturing companies have depended on the traditional CMM to provide automated quality control (AQC). However, while these provide highly accurate and reliable measurements, they are more often than not too slow and create bottlenecks in the process flow.



CUBE-R is a fast, reliable, and complete turnkey solution for automated quality control applications. This automated 3D measuring machine features MetraSCAN 3D-R, a powerful robotmounted optical 3D scanner that can be integrated into factory automation systems without compromising on accuracy. It is the perfect alternative to solve any productivity issues caused by bottlenecks at the CMM. Unlike existing solutions, our 3D scanning machine enables manufacturing companies to harness the power of optical 3D measurement and industrial automation guickly and easily, as everything is provided in a single, simple yet extremely powerful measuring cell. This 3D scanning CMM optimises the production cycle and throughput resulting in better product quality.

For anybody involved in gathering large amounts of measurement data, in particular industrial applications such as car body, pressed parts, large or complex castings, aerospace components and large mouldings, **CUBE-R** has the potential to drastically increase productivity and minimise quality control issues. The work-cell can also be supplied with a fully automated calibration system, which will periodically re-calibrate all aspects of the measuring system such that there is no accuracy drift over time, unlike more traditional measuring systems that are only checked and adjusted once a year!

CUBE-R is aimed directly at those needing to inspect parts up to 3 metres in size. The ideal applications include stampings (car body panels), pressing assemblies, body-in-white, large castings, composite panels and large mouldings, etc. The system is most likely to be used by companies having the need to measure lots of parts per day, or those with a major bottleneck caused by a lack of large CMM capacity who require a rapid solution with minimal fuss and installation issues.



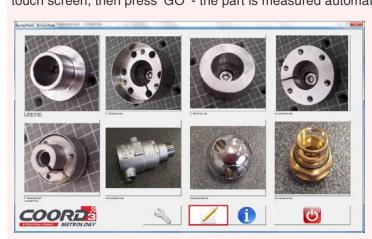
AUTOMATED INSPECTION

ALL-NEW FG600 AUTOMATED GAUGE

Coordinate Measuring Machines (CMM) have been the mainstay for many large organisations requiring high accuracy measurement. However, these are often out of reach of smaller manufacturing companies requiring a cost-effective, easy-to-use measuring gauge.

The all-new FG600 utilises traditional CMM technology and combines it with a new concept in programming and operation. For many organisations, the thought of employing specialist CMM programmers can be quite daunting, so every FG600 Automated Gauge is supplied pre-programmed for a range of customer parts. More parts can be added by Measurement Solutions in a quick and cost-effective way, eliminating the need for extensive customer training or having to employ a specialist programmer.

Andrew Tagg, MD of Measurement Solutions explains; "FG600 provides customers with an easy-to-use, but above all a cost-effective automated gauge that removes the headache of programming expertise. We take care of everything - programming, service, calibration and maintenance. Our aim is to be your virtual CMM programmer / operator, such that all the customer has to do is load the machine, select a part from the user touch screen, then press 'GO' - the part is measured automatically, generating reports as required".



The **FG600** offers a measuring range of 600 x 500 x 450mm and a volumetric accuracy of around 5 microns, which is adequate for the vast majority of machining operations.

The complete system is also available on a monthly payment scheme, so users can spread the cost from as little as £1000 per month, and avoid significant "up front" investment. As the machine is supplied "ready-to-measure", payback is immediate.



CERTIFIED ARMS

Portable arm calibration has historically taken several weeks whilst it is returned to the factory, when really only a performance certification is required.

Our UKAS laboratory has been awarded the new ISO 10360-12 accreditation for performance verification of arms by UKAS. With our own in house procedure we can also test and report the laser scanner as part of a ScanArm system performance check.

Typically we receive, check and issue certificates within a few working days. Alternatively we can visit your facility and verify performance on-site in the same day, providing you with a realistic verification of the actual accuracy of your measuring equipment within your manufacturing environment.

















METROLOGY INTEGRATION - CMM SERVICES

LEARN MORE ABOUT OUR CMM SERVICES

David Harper is the Divisional Manager for our Metrology Integration Division, and has been with Measurement Solutions for almost 20 years. We take this opportunity to ask David to tell us more about the services offered by this new Division.

What is main function of the Metrology Integration Division?

The Division was setup during 2018 to provide a dedicated focus on coordinate measuring machines (CMM) and automated inspection systems. This entails providing a specialist knowledge and understanding of after-sales support, and ensuring our customers achieve significant levels of improvement when utilising our solutions.

Our focus is very much on offering high end solutions based around the world leading **Metrolog X4** software on all types of measuring equipment, CMMs, robots with scanners etc.

Why is Accreditation so important?

Being ISO 17025 accredited enables us to offer traceable calibration services to ISO 10360-2 for CMMs and ISO 10360-12 for portable arms - we are one of the only companies able to certify portable arms to this new and exacting standard. Our customers demand traceability of their equipment accuracy to fulfil their quality systems, and this is only available from accredited companies such as ours. The way we report the accuracy of the equipment after the performance verification enables the customer to be able to specify the right tool for the job, thus giving confidence in their measurement results and reports.

How will automation change measurement?

With robot automation being available for high speed measurement, both in-line or near-line, we are starting to see a trend towards measuring cells incorporating industrial robots, enabling users of traditional CMM's to use their existing equipment as they should be for investigations, first offs etc. All too often we see CMM's being used to carry out straightforward measuring tasks that could be done far more efficiently, and definitely a lot quicker!

Why is a CMM retrofit such a good solution?

A CMM retrofit can come in many guises, combining the latest software with advanced electronics. The addition of new software, such as the latest **Metrolog X4**, will update the machine to "as new" capability and performance while costing significantly less than replacing the whole machine. What's more, a retrofit can greatly increase the capability of the machine, as it can open the machine to new probing and scanning technologies that were never available when the original software was installed.





In most cases, we are able to retrofit new software without changing any of the electronics or mechanics of the machine, as these remain serviceable. However, in some cases it is often better to replace some electronic systems, such as CNC controllers, servo drives, scales, etc., as these may have become obsolete and regarded as a risk to future reliability.

Why should I ask MSL to service and calibrate my CMM?

As we are independent of the OEM's we can provide our services on all types of CMM thus giving the customer a one-stop shop. Our UKAS accreditation also provides an assurance that everything we do is to the highest standards.

CMM RETROFITS

SUPPORTING THE COMMUNITY

Westcombe Engineering is a precision engineering component specialist with a difference. The business is a social enterprise, fulfilling the vision of its founder John Westcombe by actively seeking out to employ people with disabilities, improving life chances and society in general.



Andrew Lesiw, Managing
Director, says "Westcombe
Engineering prides itself on
being a successful leading
example in this field".
Measurement Solutions are
proud to have an association
with the company following the
retrofit of two CMM's with
Metrolog X4 inspection software.
Initially contracted to upgrade a
single Stiefelmayer, we were

quickly called back to create a common platform by supplying a second-user CNC CMM, fully equipped with motorised probe head and the latest **Metrolog X4** software.

Our Application specialist Phil Stephenson comments "It is fantastic to see equal opportunity employers providing fulfilment and technical skills, especially for people with disabilities."

Westcombe Engineering is thriving, with continued investment in modern plant, equipment, employee training and development, with a focus on operational efficiency and productivity.

LASER SCANNING ON A CMM

Walsall Pressings specialise in Technical Metal Presswork, Robotic Welding and Mechanical Assemblies for a wide range of market sectors. Quality performance is paramount, as demonstrated by recent investment in CMM retrofits, including Metrolog X4 with a Kreon Zephyr laser scanner.

Kreon scanners are ideal for use on any make or model of CMM. By fully integrating the scanner with a Renishaw motorised probe head, the Zephyr offers all the measuring capability of a traditional touch probe with a far higher degree of measuring flexibility, as the machine can scan and probe without having the need for time-consuming probe changes and expensive tool changers.

Having purchased a CEJ Cordimet CMM many years ago, Walsall Pressings tasked us with retrofitting that machine with Metrolog XG software almost 15 years ago. In recent years, the machine became unsuitable, so a second-user LK CMM was upgraded with the software and controller from the CEJ machine. More recently, a

COORD3 HERA machine was supplied, and last year the transformation was complete with the addition of a **Kreon** laser scanner.

Our CMM Scanner Upgrade packs are all-inclusive, enabling you to benefit from high speed scanning on a CMM, including laser scanner, CMM controller, measuring software, installation, training and after-sales support.















www.measurement-solutions.co.uk

COMPANY NEWS

CELEBRATING 20 YEARS

Formed in 1998 by Managing Director Iain Caville, Measurement Solutions has rapidly become one of the leading providers of high quality metrology systems and services. To celebrate 20 years in business, employees and distinguished guests enjoyed an evening at Burghley House, a grand sixteenth-century Elizabethan estate. Alongside lain hosting the dinner was his wife and codirector Barbara Caville.

The occasion was also marked with presentations to some of the key personnel and suppliers who have provided exceptional service over many years.

Left to right :- Phil Stephenson, Iain Caville, Jason Bridge, Dave Harper, Phil Brady



IDT GROUP ACQUIRES MEASUREMENT SOLUTIONS



After celebrating 20 years of success with Measurement Solutions, founder lain Caville has joined forces with Andrew Tagg to form IDT Group. Industrial Digital Technologies will form the foundation for expansion in the coming years. As part of this new organisation, Measurement Solutions has been acquired by the group, and Andrew Tagg became Managing Director in April 2019.

While the company is established as a metrology specialist in the UK for 3D scanning and CMM technologies, many market areas remain untapped. The formation of IDT Group will enable the business to expand into other market and product areas without affecting the established business.

As part of the re-organisation, Jason Bridge becomes Sales Director for Measurement Solutions, taking full responsibility for all metrology product sales. Iain Caville remains as a Director and Investor for IDT Group.

Image :- Andrew Tagg and Jason Bridge, the new Directors of Measurement Solutions

PARTNER NEWS

10 YEARS FOR MANCHESTER METROLOGY

In a world of reduced budgets, capital expenditure for short term projects is not always a feasible option, despite the significant benefits a product may offer.

For this reason, Measurement Solutions recently partnered with Manchester Metrology, who offer short and long term rentals of measuring equipment. A significant investment in HandySCAN 3D and MetraSCAN 3D systems, including the all-new HandySCAN BLACK, now provides the option to rent equipment for our customer base.

In August 2018 we were pleased to celebrate the success of Manchester Metrology as they moved in to a new and expanded facility, which also happened to coincide with their 10 Year anniversary.

Image :- Paul and Lynda Bulman receive magnums of champagne from lain Caville



ISCAR TOOLING

A new strategic alliance with ISCAR Tooling is set to provide customers with a "live" platform to demonstrate a closed loop approach to product design, manufacture and quality control, in line with Industry 4.0.

ISCAR are the perfect partner to demonstrate this solution at their new state of the art facilities in Birmingham. David Jones, Sales Manager for ISCAR has a clear vision; "Our expertise in CAD design, tooling and machining is second-to-none. We see metrology as a vital link in the manufacturing chain, and Measurement Solutions have proven to me that they are the ideal partner for ISCAR".

As part of the alliance, a new FG600 Automatic Gauge will be installed at the ISCAR facility, so customers can see a complete end-to-end design and manufacture facility.

CREAFORM PRODUCT LAUNCH



The annual Creaform Sales Meeting was this year this year held in Quebec, Canada, and was attended by over 300 sales partners, including employees, resellers and sales partners from all over the world. Attendees enjoyed one of the biggest product launches ever seen in the metrology industry, along with informative presentations on industry trends, technical applications, and sales and product training.

Representatives from Measurement Solutions attended the show, and were the first to see the new products to be launched onto the market from Creaform. For more details, contact our sales team.

CONTACT US

Contact us to learn more about our range of measurement solutions;

Headquarters: 13 Swan Court **Forder Way** Peterborough PE7 8GX **CMM Service & Training Centre:** 6 Royal Scot Road **Pride Park** Derby DE24 8AJ



Deryck Lamb Area Sales Manager:

Southern England



Shane Dover

Area Sales Manager: Northern England, Scotland & Ireland



David Harper Divisional Manager: CMM, Automated QC

Tel: +44 (0)1733 32 52 52 Email: sales@measurement-solutions.co.uk