



MARKON ASHLEIGH

Construction LLC

Company
Profile



MARKON ASHLEIGH

Construction LLC

Leaders In Bespoke Engineering Solutions

MARKON ASHLEIGH welcomes problem statements from any business or organisation and, using innovative technology, develops new methods which allows operators to achieve what was previously considered not possible.



Nuclear Services



Oil and Gas



Renewables



Deep Recovery Facility

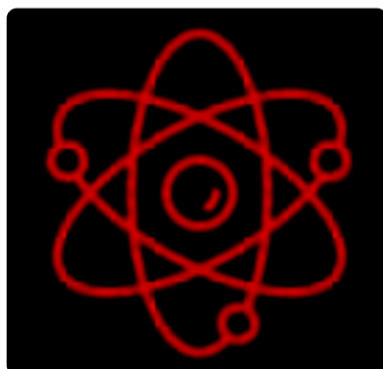
Who are MARKON ASHLEIGH

Here at **MARKON ASHLEIGH**, we dedicate ourselves to engineering excellence. We work closely with industry leaders in a wide range of sectors to help them deliver innovative and ground-breaking solutions to complex problems.

OUR SERVICES

Our Capabilities

Our ability to apply a common sense "keep it simple" approach to Engineering, and extensive Research and Development has allowed us to deliver a wide range of solutions by combining engineering knowledge and experience with in depth knowledge of what is achievable within restrictions of oil, gas & nuclear environments from both physical and political viewpoints.



Nuclear

Nuclear Services CUTTING
Edge Technology Brought To
You By MARKON ASHLEIGH



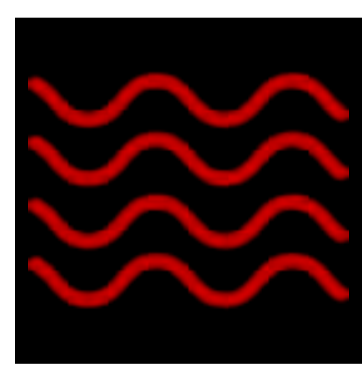
Oil and Gas

Oil and Gas Services CUTTING
Edge Technology Brought To
You By MARKON ASHLEIGH



Renewables

Renewable services CUTTING
Edge Technology Brought To
You By MARKON ASHLEIGH



Deep Recovery

Deep Water Recovery CUTTING
Edge Technology Brought To
You By MARKON ASHLEIGH



Inspection

Inspection services CUTTING
Edge Technology Brought To
You By MARKON ASHLEIGH



Trade Counter

MARKON ASHLEIGH's expert
Trade Counter staff are here to
help you.



**Fantastic Service, Complete Life Savers
When Hydraulic Winch On Lorry Packed In
On A Job And Came To The Rescue. Many
Thanks From Boris Caravans.**

Winter Antonio

Ian Water

INTRODUCE OURSELVES

Meet The MARKON ASHLEIGH Team



MARKON ASHLEIGH
Managing Director

Graham Cartwright
Projects Director

Martin Lewis
Commercial Director

Tony Sneesby
General Manager – Barrow

Our Services
(With photos)

- °Nuclear
- °Oil and Gas
- °Renewables
- °Deep Water Recovery
- °Inspection
- °Innovation
- °Trade Counter

KEEP IT SIMPLE APPROACH

Our Services (With photos)

- **Nuclear**
- **Oil and Gas**
- **Renewables**
- **Deep Water Recovery**
- **Inspection**
- **Innovation**
- **Trade Counter**



Nuclear

Given Markon Ashleigh's proven expertise of delivering solutions in the harsh environment of the nuclear industry, especially at Sellafield Ltd, Markon Ashleigh is able to apply its thinking and experience to other hazardous industries around the world.

As well as across the nuclear sector Markon Ashleigh now has many global clients in the oil and gas, marine and renewables, including offshore wind markets.

Remote Solutions

While the range of industries Markon Ashleigh's serves are extremely diverse, they all have a common thread of focussing on trying to remove "people" from hazardous, potentially life-threatening, situations. Much of Markon Ashleigh's recent work has been based around providing remote solutions to allow decommissioning operations to be completed from a safe environment away from the workforce.

Markon Ashleigh welcomes problem statements from any business or organisation and develops new methods using innovative technology which allows operators to achieve what was considered not possible before.

The majority of decommissioning projects which Markon Ashleigh is working on are world firsts and designed to save clients significant money, time and, more importantly, protect employees' welfare.



Robotic Solutions

Robotic solutions are used widely in nuclear sites globally. Given the nature of the nuclear industry, many areas of a site cannot be accessed by humans safely, or at least for any length of time, so robotic solutions play a huge part in the markon ashleigh manufactures many different rovs, cameras, lighting systems, tools, deployment systems, and more to solve decommissioning challenges.

Markon Ashleigh has produced tracked vehicles, wheeled vehicles, pipe crawlers, swimming vehicles, and vacuum climbers to operate in the many different environments.

More recently there has been a dramatic increase in the usage of drones, Markon Ashleigh sees more robotic systems being utilised as technologies develop further. Markon Ashleigh sees it as vital to continue to develop these solutions further so that challenging decommissioning projects around the world can be completed more safely and efficiently.

OIL AND GAS



Delivering Engineering, Maintenance and Decommissioning Excellence to Process, Production and Manufacturing Industries

Spherical Pig Retrieval Tool

Pigging is a standard process within the Oil and Gas industry involving the deployment of a specialist cleaning device, known as a Pig, down a process pipeline, using the downstream process pressure to drive the pig to the end of the line.

The Pig is then required to be removed to allow the continuation of production of the plant.

The Pig position varies at the end of the pipeline due to the varying pressure and friction forces encountered in the pipeline during the process

The Pigging Process

Markon Ashleigh were approached by a customer who were unhappy with the current labour- intensive Pigging process, which used a long reach hook and tirtor to latch and then retract the Pig to the retrieval point and were seeking a safer, more efficient solution Markon Ashleigh therefore, began to develop a modular tool spread that integrates an ATEX Zone 1 pneumatic winch to a receiving cradle for the Pig, which is then coupled to a lightweight, self-supported and centralised long reach grabbing device (adjustable up to 15m), utilising an auto-locking grab at the front of the assembly, which latches to the Pig upon contact with the Pig's latching point, used in tandem with a front-mounted ATEX Zone 1 camera linked to a topside viewing monitor, to provide a feedback loop to the operator, thus reducing manual handling and operating time, to allow the swift return to production as well as improving the ultimate safety of the process.

The latching point on the Pig for this project was a wire rope which drove the design of the front grab, however, due to the modular design of the tool spread, only the front grab need be modified to tailor to any different Pig latching point designs.



SPHERICAL PIG RETRIEVAL TOOL KEY FEATURES

Lightweight, modular and universal design on both the trolley and grab arrangement allows Suction Cup grab

- System with auto release
- 360Kg WLL pulling capacity
- Adaptable to any Pig and receiver bore size
- Electrically conductive castors for further explosive atmosphere protection
- Spring loaded trolley & castor assemblies for mitigating circumferential imperfections and defects
- Optional front mounted TEX Zone 1 Camera and partnering Tablet to provide feedback to operator of successful latch

ASSET INTEGRITY / CAISSON INSPECTION

The Oil & Gas Industry has continuously developed with new & improved existing technology which has helped it to produce oil and gas in a more efficient and sustainable way.

This development has created a demand in the market for innovative and efficient ways to support lifetime extension programs of existing assets and infrastructure.

One key area of this 'late life' can be found in the asset caisson's (seawater inlet, outlet pipes) which suffer from excessive corrosion and fatigue life problems.



MARKON ASHLEIGH's services include;

- HD Visual Inspection
- HP Water Jet Cleaning
- Ultra Sonic Inspection
- Debris Recovery
- Bespoke Project Solutions.

MARKON ASHLEIGH specialising in Asset Integrity challenges, inspection of caissons, have utilised and developed market leading technology derived over many years of experience to maximise the gathering of information and reduce the off-shore operational duration.

MARKON ASHLEIGH Engineering can provide the 'next level' of technical solutions for accurate, reliable detection of aging caisson defects.

Our aim is to work with our clients in providing the highest quality solution and data, utilising our diverse range of inspection and recovery tooling.

INNOVATIVE ENGINEERING SOLUTIONS

MARKON ASHLEIGH is an innovation focused company, that prides itself on delivering remotely deployed inspection solutions to meet the clients needs.

With over a 100 years of collective Offshore Experience, meeting and managing challenges in every aspect of the Offshore Asset Lifecycle.

Dedicated on producing accurate and repeatable inspection results, forming good working relationships with Client Teams to deliver tailored solutions, via a capable, experienced man- agement, engineering and inspection technicians, for projects involving inspection of subsea items.

MARKON ASHLEIGH, develops and uses specialist technology to provide a superior range of services and solutions to its many clients, this is now enhanced by our Caisson Inspection service to the Oil and Gas industry.



ASSET INTEGRITY / CAISSON INSPECTION



- Lightweight, completely modular framework, minimising the need for unique individual parts and extensive spares
- 300M Depth Rating, HD Camera System, IP68, trackable positioning, full rotation, pan & tilt
- HP Jetting , Max WP—1000Bar (14500psi)
- Adaptable to any Pig and receiver bore size
- 24ins—42ins Caisson capability with potential scope to increase or decrease diameter working range if required
- Adjustable, skid based, centralising system, allowing for varying ID differentials, quickly deployed, maintaining a failsafe against potential jamming risk of the tool in the caisson
- Designed to be mobilised within small transit cases, for rapid, helicopter mobilisation (if required)
- Photogrammetry Debris Removal / Recovery Crash Barrier / Diver Screen Removal Caisson Window Access cutting / Caisson Internal Piping Decommissioning / Intake Hole Cutting (Can be modified for a greater range of work scopes with the minimal cost and time contributions)
- Can be used as a Deployment Platform for a wide range of Caisson Related functions:

- **RENEWABLES**

WORLD-FIRST robotics technology is being developed which will help a key component in the renewable energy sector operate more efficiently.

- **RADBLAD**

MARKON ASHLEIGH Engineering in Cumbria hosted Drop One Trials of the autonomous underwater system for nuclear inspection at its headquarters in Cumbria in August.

- **LIGHTWEIGHT ROBOT**

A lightweight robot capable of carrying out an X-ray maintenance survey of wind turbines – offshore and onshore – is being developed for the windfarm industry.

- **PARTNERSHIPS**

MARKON ASHLEIGH Engineering, in Cumbria, together with a consortium of industrial and academic partners – Innvotek, TWI, ORE Catapult, Renewable Advice and London South Bank University – are developing the RADBLAD technology

- **TURBINES**

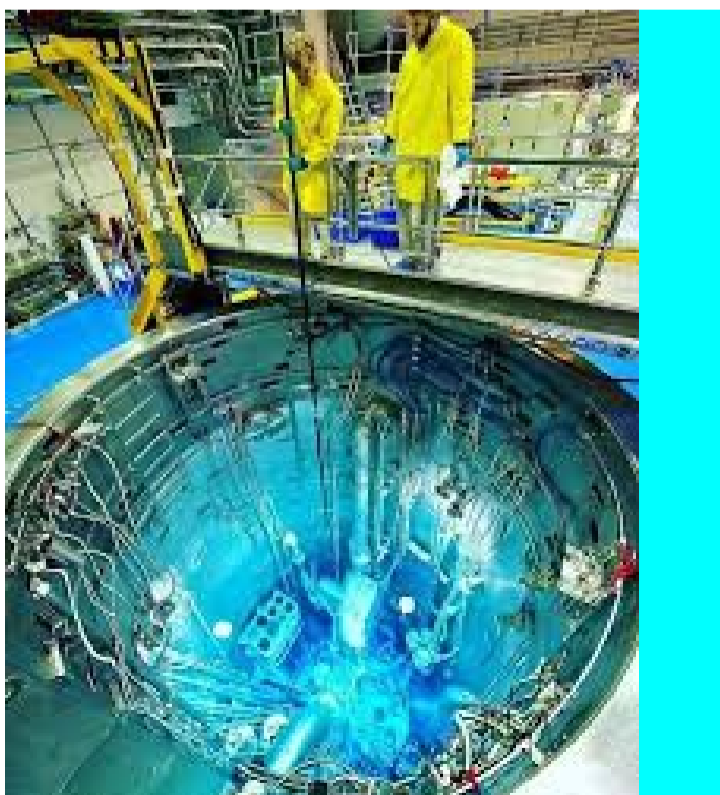
RADBLAD will complete a full X-ray survey of a Vestas V47 size turbine and all its blades in just a few hours.

The innovation is in line with the UK government's policy of increasing renewable power to bring all greenhouse gas emissions to net zero by 2050.

This has led to a significant growth in installed wind power capacity within the last decade, especially in offshore wind power in the UK which is the world's sixth largest producer of wind power.

This growth has also meant a higher level of maintenance required across the industry with more wind turbines and more blades needing to be checked for faults.

At the moment one of the ways surveys are carried out is manually by maintenance engineers climbing the wind turbine and its blades with rope access.



- Turbine blades are subjected to gusting wind loads, driving the accumulation of fatigue damage in the blade structures, leading to failures.

Around 3,800 blade failures a year are attributed to poor maintenance. There's also a significant financial cost to such manual inspections.

The technology has already been attracting interest from robotics and AI experts around the world and is set to be ready for testing in a representative environment in April 2021 at the Offshore Renewable Energy (ORE) Catapult's National Renewable Energy Centre in Blyth in Northumberland ready to deliver the solution later in 2021.

The MARKON ASHLEIGH Engineering Solution

°To provide a solution, Forth and its partners are more than half way through a two-year project, funded by Innovate UK, to develop its RADBLAD technology.

°The pioneering lightweight portable robot - each section of the RADBLAD system weighs less than 25kg - will make surveys safer, faster, and cheaper, removing the need to put lives at risk

°The differentiation elements of RADBLAD, when compared with other systems, is in the use of radiographic based in-situ inspection, the automatic detection of defects using an artificial intelligent (AI) based software, and the use of a modular approach for the robotic system.

°The advantages of this system are early detection of blade (internal) defects, in a quicker, safer and systematic way, while reducing the risk to human operators.

There are about 350,000 wind turbines in the world. China, USA, Germany, India, Spain, and the UK are the top six countries in the world in terms of wind capacity. In the UK there are 10,790 wind turbines, 8,600 onshore, and 2,190 offshore.

Markon Ashleigh, managing director of Markon Ashleigh, said: "This will be another world-first for Markon Ashleigh and another example of where an industry has a specific challenge and has asked us to come up with a solution. This is the way we like to work and if other industries are facing similar challenges we are always happy to talk to them."

RADBLAD is the latest in a long-line of world-first products which Markon Ashleigh continues to develop. Its other recent developments have included new products in the fight against COVID-19 and, with partners, it recently successfully demonstrated its Autonomous Aquatic Inspection and Intervention (A2I2) underwater robot set to transform the way a range of industries carry out inspections and maintenance.

Markon Ashleigh also continues to expand its team and its premises to meet the demand for its expertise. Hot on the heels of recruiting four members of the team, Markon Ashleigh is looking to further strengthen with opportunities to recruit for a range of posts including mechanical design engineers and technicians.

Markon Ashleigh has also built three new offices at its headquarters in Maryport, doubled the size of the retail space at its trade counter to include PPE and other essential items, and is making more use of its 68,000 square-foot base in Cleator Moor as an innovation hub. The company also opened a new base in Barrow last year.

Markon Ashleigh has also built three new offices at its headquarters in Maryport, doubled the size of the retail space at its trade counter to include PPE and other essential items, and is making more use of its 68,000 square-foot base in Cleator Moor as an innovation hub. The company also opened a new base in Barrow last year.

The Consortium

The consortium involved in the project has been able to press ahead with the work, and find solutions to working in a way which allows the project to keep progressing while often operating remotely.

Markon said: "This project represents a clear technological innovation for the UK offshore wind generation industry, and a major growth opportunity for the SME supply chain consortium.

"It has the potential to make significant cost and efficiency savings, with strong prospects in terms of exporting this technology around the world."



DEEP RECOVERY

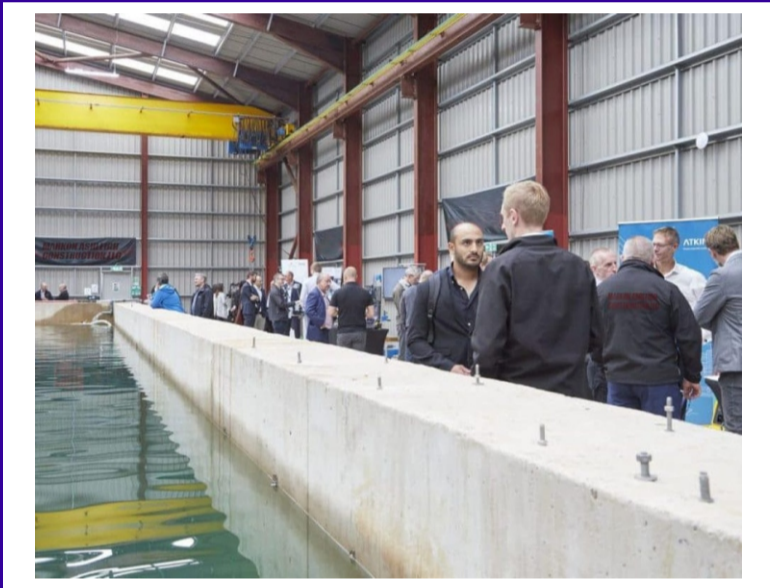
Markon Ashleigh is keen to hear from businesses and organisations which would benefit from using its Deep Recovery Facility for research and development.

DEEP RECOVERY FACILITY

At 22.5 metres long, 10 metres wide and six metres deep, and holding 1.2million litres of water, it is one of the largest wet test facilities in the UK.

The covered, freshwater pond, built at Forth's HQ at Flimby in Cumbria as part of a £1.25m investment, allows businesses from a range of industries, including nuclear, oil and gas, marine and renewables, to carry out their research and development.

It is used by Malta-based EM&I group, an industry-leading global organisation providing support services to the oil, gas and energy industries – which has offices in Malta, France, Germany, UK, South Africa, China, Australia, Brazil, USA and Canada.



companies and organisations to use for testing equipment, or for divers, or any business or organisation involved in underwater operations. It is the perfect place to test new technology. "We also have conference rooms for companies to use while they are here testing their equipment so it means they can be time-efficient while they are on site."



MARKON ASHLEIGH
Managing Director

Robotic Solutions

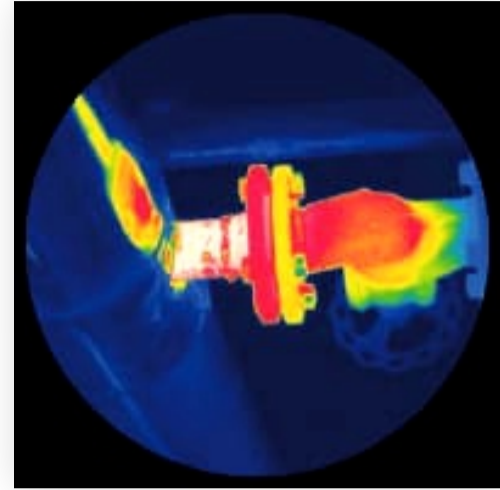
Peter Gresty, Equipment and Training Manager for the EM&I Group, said: "The pond at Markon Ashleigh is ideal for us. We use it to carry out many aspects of our technological development. The facilities at Markon Ashleigh are unique and we really value being able to use the pond as it helps us to be innovative and stay ahead of the game when it comes to our technical development. The team at Markon Ashleigh are also very accommodating and great to work with."

Markon, Markon Ashleigh's managing director, says there's scope for other businesses and organisations to be making use of the facility.



INSPECTION SOLUTIONS

We are an innovation-focused company that prides itself on delivering remotely operated/deployed inspection solutions to meet the clients needs.



RESTRICTED ACCESS INSPECTION SERVICES

The Oil & Gas Industry has continuously developed with new & Improved existing technology which has helped it to produce oil and gas more efficiently and sustainably.

This development has created a demand in the market for innovative and efficient ways to support lifetime extension programs of existing assets and infrastructure.

One key area of this "late-life" inspections. By its own nature, this brings Access issues and Risk to gather information from those Remote and Restricted Areas.



ASSET INSPECTION CHALLENGE

We are an innovation-focused company that prides itself on delivering remotely operated/deployed inspection solutions to meet the clients needs.

With over 100 years of collective Offshore experience, meeting and managing challenges in every aspect of an asset inspection both On and Offshore.

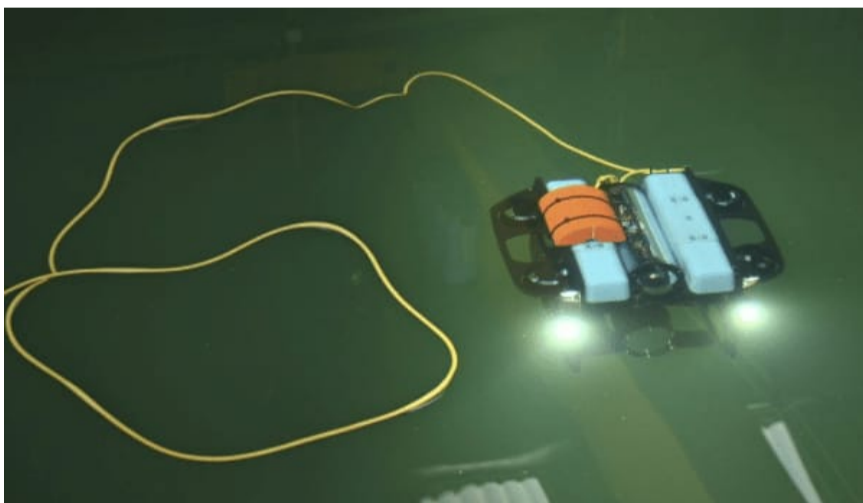
Dedicated to producing accurate and repeatable inspection results, forming good working relationships with Client Teams to deliver tailored solutions, via capable, experienced management, engineering and inspection technicians, for a multitude and diverse range of project challenges.

RESTRICTED ACCESS INSPECTION SERVICES

1. ATEX Zone 1 Rating HD Camera System, a 1080p (Capture & Stream), 3x Digital Zoom, Integrated LED Illumination, Thermal Imaging, Class 1 Laser Pointer, Live collaboration software, Bluetooth, Wi-Fi and Data Encryption, ATEX 1 Zone rated feedback device. (ii 2G EX in op is IIC T4 Gb IP64 / II 2D EX in op is IICT1 35°C Db IP64).
2. No Scaffolding Requirement.
3. No Specialist Rope Access Teams.
4. Operated from a safe location, long reach, replaces the need for scaffolding.
5. Designed to be mobilised within small transit cases, deployment accessories to meet your challenges.
6. Adaptable to a variety of tooling/deployment to suit various inaccessible locations.
7. Instant Data Feedback
 - Allow On/Off-Site Integration.
 - Real-Time Feedback (to TA's/Integrity Team/Office/Control Room).
 - Live streaming from a Remote/Restricted site to Office locations.
 - Reduced Permitry.
 - Allowing access into Remote/ Restricted Areas.
 - Risk Reduction (Can be modified or made autonomous for a greater range of work scopes).
8. Maintain a consistent survey & inspection service, crucial to preventing unplanned downtime and disruption.



Innovation



Markon Ashleigh Construction (Birmingham) Ltd is an award-winning UK advanced technology solutions business with bases at Maryport, Cleator Moor and Barrow-in-Furness in Birmingham.

Markon Ashleigh's Avexis robot is a previous winner of the Best Academic Collaboration Award at the Innovus Awards backed by the National Nuclear Laboratory and The University of Manchester's Dalton Nuclear Institute to showcase pioneering technology being used in industry.



ROVCO

Rovco has been supporting each work stream with its groundbreaking, artificial perception technologies including 3D Computer Vision, Simultaneous Location and Mapping (SLAM), autonomous path planning and scene understanding using Machine Learning (ML). Rovco's Intelligent Data Collection System can be integrated into any subsea vehicle to enhance its capability.

D-RisQ brings advanced automated software development tools to safety-critical, security-critical and business-critical systems developers. D-RisQ has used these tools to develop high integrity, autonomous decision making, safety-critical software for this demonstrator that enables the autonomous operation in accordance with regulatory requirements.

The University of Manchester is developing wireless underwater communications, which will ultimately eliminate the need for a tether, allowing the robots developed in A2I2 to operate more freely in hazardous environments.

Markon Ashleigh's other recent projects include working to develop a world-first Friction Stir Welding Robotic Crawler (FSWbot) for internal repair and refurbishment of pipelines which can be used by a range of industries without having to stop production.

It has also worked with partners on developing the pioneering Hullguard system of protecting floating offshore installations from corrosion without using divers which has been successfully deployed for the first time in the UK North Sea.

To fast-track other collaborative solutions, Markon Ashleigh is developing its 68,000 square-foot base in Cleator Moor as an innovation hub where products such as FSWbot will be developed.

The company has also been on the frontline when it comes to fighting COVID-19. It has developed a disinfecting robot, and supplied disinfecting cannons, to help a range of industries, businesses and organisations welcome back staff and customers safely.

Forth gave up its Cleator Moor office space for free during lockdown to charity Scrub Hub North West which delivered essential equipment to local hospitals.



Trade Counter



CUTTING Edge Technology Brought To You By MARKON ASHLEIGH

As Markon Ashleigh's Trade Counter at its Maryport HQ supplies essential tools and services to key workers in industry, digital currencies, food supply including farmers and fishermen, councils and public services including buses and bin wagons, it is very much open for business throughout lockdown.

Equipment Range

If you are in need of some tools then Markon Ashleigh's expert Trade Counter staff are here to help.

Visitors can also be assured that the Trade Counter is enforcing all guidelines to ensure customers' safety at all times.

Markon Ashleigh has recently expanded its Trade Counter operation and now stocks an assortment of stainless-steel fixtures and fittings, hydraulic and pneumatic fittings to suit vehicle and plant needs, as well as agricultural quick release couplings, and high-powered lighting rigs suitable for agricultural use.

It also offers a 'while-you-wait' service for the manufacture of hydraulic hoses or pressure washer hoses, and sells, services and repairs pressure washers, compressors, small tools and plant. It also stocks hand tools, oils, lubricants, fixings, fasteners and filtration equipment



While You Wait

Dave Cavanagh, Markon Ashleigh's Operations And Logistics Manager, Said: "We Now Stock A Whole Range Of Products For Different Industries And Applications. And If We Have Not Got A Particular Item In Stock We Can Get It For The Next Day."

Bishops Court, Birmingham Business Park, 6220, Birmingham B37 7YB, United Kingdom is open 7.30am-5.30pm Monday to Friday; 8am- 1.30pm on Saturday, or **Call/WhatsApp +447529356892**



MARKON ASHLEIGH
Managing Director

We have been growing the business and looking at what industries would benefit from the products we have developed and what demand is there for specialist trade counter stock. We concluded that agriculture and the fishing industry were among those industries and we are delighted to expand our services for those in any industry across the area who need tools and equipment"

INVESTMENT

Invest into our projects by choosing any of the investment plans

Plan A

Minimum investment: \$500
Maximum investment: \$4999
RIO: 1.3% daily
Duration: 7 days

Plan B

Minimum investment: \$5,000
Maximum investment: \$9,999
RIO: 2% daily
Duration: 7 days

Plan C

Minimum investment: \$10,000
Maximum investment: \$19,999
RIO: 2.5% daily
Duration: 7 days

Plan D

Minimum investment: \$20,000
Maximum investment: \$49,999
RIO: 3.3% daily
Duration: 7 days

Plan E

\$50,000 Upward
RIO: 4% daily
Duration: 7 days

COMMUNITY BLOG

Our Community Work

We are fortunate at Markon Ashleigh to be a successful business with a great team of people who help organisations around the world solve their industry challenges from our three bases in Birmingham.

Throughout the 20-year development of the company, community has always remained at the heart of what we do, and it is as important to us today as the day we started.

The Markon Ashleigh Construction team always go the extra mile for the community and we encourage every member of our team to give something back, with many volunteering for charities and community groups.

Bishops Court, Birmingham Business Park, 6220,
Birmingham B37 7YB, United Kingdom

T/W +447529356892

E. Info.markonashleigh@gmail.com

OPEN HOURS:

Mon – Friday: 8 am – 5 pm.

Saturday: 8 am - 1:30 pm.

Sunday: CLOSED.

Trade Call/WhatsApp out service: 24 hours

Innovation

A2I2

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FSWbot

RESURGAM

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Deep Recovery Facility

Inspection Solutions

Trade Counter

About

Here at MARKON ASHLEIGH CONSTRUCTION, we dedicate ourselves to engineering excellence.

We work closely with industry leaders in a wide range of sectors to help them deliver innovative and ground-breaking solutions to complex problems.

Our Community

Excellent local company who supports the local community and goes the extra mile to deliver their services to one and all...where no job is too big or too small.

Businesses join forces to ensure children across community receive a gift from Santa KIND-HEARTED business owners have stepped in with their own Santa plan to



Elise Ashleigh raises £1,000 for Cancer Research
Congratulations to Elise Ashleigh who has raised £1,000 for Cancer Research after redoing a sponsored walk which members




4,000 carrier bags of food delivered to ensure no child in Copeland goes hungry this Christmas A STAGGERING 4,000 carrier bags of food were delivered







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