

SURFACE TECHNOLOGY ON A GLOBAL SCALE



PRECISION MACHINING
THERMAL SPRAY COATING
PTA WELDING
LASER CLADDING
DIAMOND GRINDING
SUPER-FINISHING
FABRICATION

ABOUT US

ASCO Engineering has its roots in precision machining, surface coating and finishing technologies. Our experienced engineers, together with the ASCO team, have developed a unique customer-focused service from its divisions in the UK and Dubai. Our aim is to help our customers meet their global aspirations while maintaining a safe environmentally friendly workspace for all our employees and service partners alike.

Reputation is built on trust – and right first time, every time.

While engineering is the bedrock of our business, it is continuous improvement in the use of technology, combined with our commitment to innovation, that positions us as the frontrunner in our sector.

Our vision is to ensure that our customers receive the highest levels of quality, service and support. Our unique approach to coatings means that ASCO customers achieve increase component life and improved reliability while ensuring downtime and costs are kept to a minimum.

Our reputation is built upon our uncompromising commitment to quality. As an ISO 9001-2015 certified company ASCO's total quality control encompasses all engineering and management processes thereby ensuring we maintain the highest standards that our customers expect.

ISO accredited – proven quality & reliability.

Our **"right first time"** attitude is reflected in our lean manufacturing processes which maximise efficiency and ensure the most competitive turnaround times. Our ability to meet and exceed client expectations is based upon years of experience in a wide range of industries, and our understanding of your individual problems enables us to tailor solutions that exactly meet your requirements.

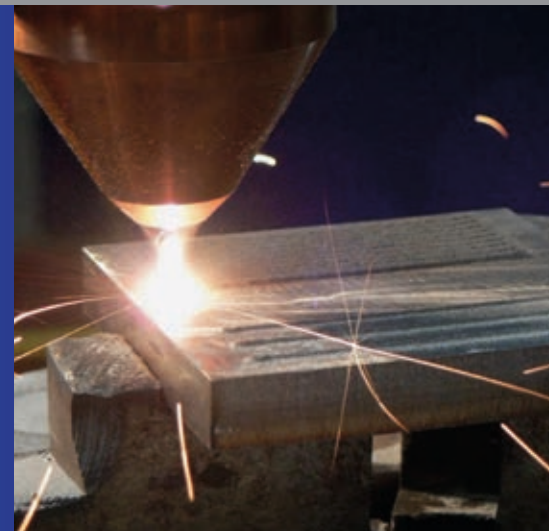
Continuous improvement is an integral part of our business. To ensure this is carried out consistently, we have a system of self-auditing tools and utilise root cause analysis systems. In order to minimise waste and maximise efficiency, our manufacturing process encompasses elements of Lean **Manufacturing and 5S**, all of which bring direct benefits to you, the client.



LASER CLADDING

Internal and external Cladding available for the following applications:

We offer localised laser cladding to protect outer diameters against wear in the well, for example MWD and LWD Tools/Drill Collars/Stabilisers/Couplings. We also produce gas tight coatings with high corrosion resistance for Ball Valves, Gate Valves and Seats. ID cladding of radial bearings is also provided.



OUR SERVICES

We help you to maintain your operations 24/7



Offshore to our facilities and back on the rig within 24 hrs, ASCO knows the importance of meeting your deadlines. We're agile and flexible – meaning you have peace of mind at every stage of the process.

Offering you a wide range of products and services we ensure you maintain uptime. With this in mind we've created a 'one-stop shop' which provides you with full component manufacture including precision machining and fabrication through to thermal coating, PTA welding, laser cladding, diamond grinding and Super-Finishing processes. Throughout the process, we ensure we maintain our commitment to on-time delivery. Our reputation is built on you.

Services Summary:

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- Precision Machining
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- Fabrication
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- Thermal Spray Coating
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- PTA Welding
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- Laser Cladding
-
- Shot Peening
-
- Diamond Grinding
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- Super-Finishing
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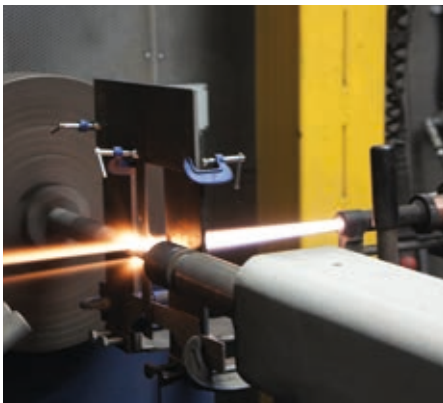
Grinding

We offer a wide range of grinding services including **Cylindrical & Internal Grinding** for thermal spray coatings & machined components, **Superfinishing, Lapping & Polishing**. Our skilled engineers operate the latest technology and equipment to achieve and meet critical tolerances to give consistent results time after time.

Machining & Bespoke Fabrication

Our extensive machine shop is equipped with the latest CNC lathes and machining centres. All of which are capable of producing a wide range of components to ISO 9001.

Because of our flexible approach, we are able to produce bespoke, one-off prototypes through to large batch orders all with quality guaranteed.



METALLURGICAL LABORATORY

Our on-site Metallurgists & Testing Laboratories perform evaluation tests and reporting to ensure that our thermal spray coating & cladding meets international standards and also, importantly, the exacting standards defined by you.

Using our state-of-the-art lab tests, we can ensure that conformity of bondstrength, porosity, hardness, coating structure and interface cleanliness can all be verified.



THERMAL SPRAYING

ASCO is renowned for its state-of-the-art equipment and processes. Our special purpose designed machinery allows us to provide large or small batch coated components without compromise. Added to this is over one hundred years of combined skill and expertise which underpins our industry leading approach.

Our thermal spray coating process allows coatings of high performance materials such as Carbides, Metals & Alloys, Ceramics and Cermets to be applied to more economical, and relatively easy-to-work, base materials. ASCO's thermal spray technology also offers significant improvements in component performance – mitigating wear, heat, oxidisation and corrosion effects.

Thermal spray coating is a viable alternative for salvage and repair components that would otherwise have long lead times to re-manufacture.

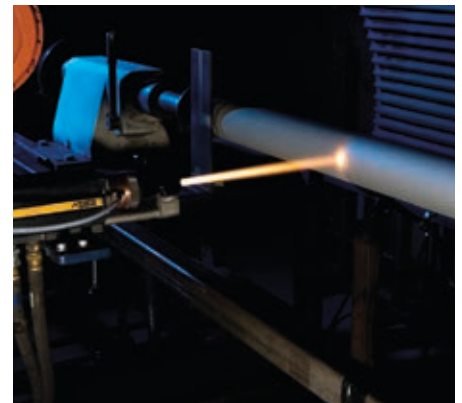
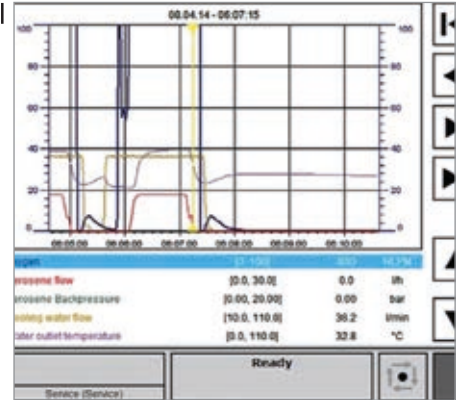
Sector benefits

ASCO has a wealth of experience in applying thermal spray coating solutions to the Oil & Gas industry – topside, down hole, subsea and on land. We are recognised for meeting the demand of the directional drilling industries as a reliable supplier, who is continuously able to offer innovation and cutting edge solutions.

Using Trending Reporting we can ensure that the coating parameters never drift outside of the optimal range. This gives you 100% repeatability on every single part.

Applications include:

- Erosion, abrasion, cavitations and corrosion protection
- Wear-resistant coatings
- Surface performance modification
- Chrome replacement
- Dimensional rebuild
- Sacrificial coatings



ASCO TESTING HOUSE

We regularly test our methods and processes. With our dedicated on-site testing house, we're able to identify areas of wear and build out obsolescence. This ensures consistency across our processes, guaranteeing you peace of mind and durability each and every time. CMM Inspection provides quality assurance inspection data on demand which underpins all this.

To satisfy the strict safety demands of the **BOP** and **Valve sector** ASCO has installed an on-site Gas Testing Rig. This allows our coatings to be pressure tested up to 15000 psi, in-house, for every batch produced.



PROVEN ABILITY TO DELIVER



Our heritage brings experience. But this is not all. We're recognised for continuously achieving high standards. As well as our ISO 9001 accreditation, we are certified Compliant to Aviation Specification AMS 2447 REV D. We are regularly audited and certified by our customers many of whom are industry leading companies who require compliance with their current and regularly evolving performance standards. We are happy to open up our workshops for audits at any time.



Examples of coating applications include:

- Impellers
- Drilling Mandrels
- Valves
- Wear Rings
- Pump Shafts
- Casings
- Turbine Blades
- Combustion Cans
- Landing Gear
- Operating Pistons
- Seals
- Gate Valves

Delivering longer component life with HVOF Coatings

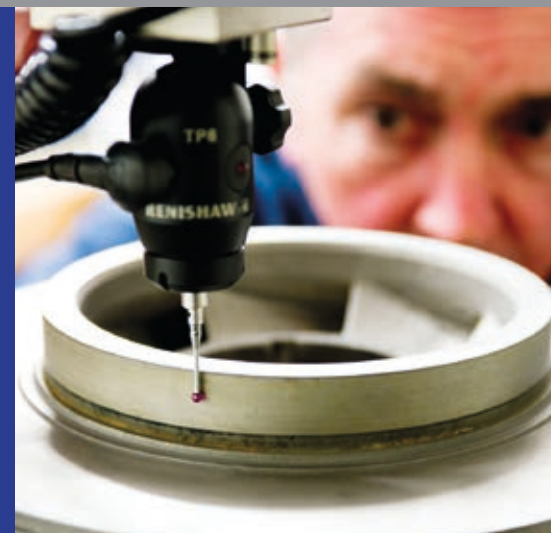
HVOF Tungsten Carbide Cobalt Chromium has replaced traditional hard chrome plate as part of the European REACH initiative giving a far superior performance – meaning less downtime and increased functionality.

ASCO-FZCO is a **Cameron Approved Vendor** to apply **HVOF Tungsten Carbide coatings**, used in the repair of BOP components, namely Operating Pistons and Tail Rods. 'Fast-Track' delivery is all part of the service from our complete 'one-stop shop' environment.

PROVEN METHODS

Our proven methods mean that **erosion, corrosion and cavitation-resistant coatings** provide great solutions to many of the inherent issues created by the harsh conditions common in many of today's operating environments.

We are always happy to provide a full list of our applications and their relevant operating environments.



ASCO ENGINEERING & SURFACE TECHNOLOGY



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