

Dynamic and progressive

As a leading name in global materials engineering, **Wall Colmonoy** has remained a pioneer in manufacturing for over 75 years

Dating back to when Albert F. Wall founded the business during 1938 in Detroit, Michigan, Wall Colmonoy has persevered in the spirit of Mr. Wall's entrepreneurial ambition, with a culture of innovative vision ever-present at the core of what shapes the ongoing success of the company. Today, Wall Colmonoy has grown into a global organisation that employs close to 400 staff, with offices in the US and UK. The company has had a presence within the UK since 1952. Wall Colmonoy Limited (UK), was originally based in Motherwell, Scotland, before moving to its current location in 1969 to the Welsh town of Pontardawe. The region was made attractive to Wall Colmonoy due to its rich 200-year metallurgical history and a readily available, highly skilled workforce. The town of Pontardawe also boasts a good source of qualified graduates from local Welsh universities and in close proximity to a major metal supplier at the Vale refinery, Clydach (formerly INCO Ltd).

Wall Colmonoy Limited (WCL) is a US family-owned global leader in advanced

materials engineering and has been a major employer in South Wales for close to 50 years. Managing Director, Steph Curtis explains: "WCL is a worldwide leader in manufacturing nickel and cobalt-based powdered alloys; castings and precision machined components. We provide advanced metal coatings, brazing, heat treatment and welding to aerospace standards. We currently employ around 170 members of staff within the UK and generate a turnover of £25 million annually, with 90 per cent of the company's products being exported across Europe, Russia, Scandinavia, the Middle East and North Africa (MENA), South Africa and India. The products and services that the company provide play an integral role in many industries that are instrumental to our everyday lives.

"We help our customers operate more efficiently and effectively. We develop value added solutions to minimise customers' operational expenditure and extend product life. What does this mean? Well, it means, through the application of a wide range of powdered alloys, solving wear, corrosion, erosion and abrasion issues for parts like neck rings and



Wall Colmonoy's Precision Components for the Power Generation Industry



Wall Colmonoy's Precision Components for the Glass Container Industry



plungers that are used in glass bottle making; for continuous cast rolls in steel making; for downhole drilling tools in oil & gas extraction; for boilers in waste to energy plants; it means joining parts for high-temperature and corrosion applications like Exhaust Gas Recirculation units (EGR's) and Catalytic Converters for automotive industry, for heat exchangers that are found in aerospace or power industries."

Wall Colmonoy is a diverse business – but it is focused on listening to its customers in order to meet their needs. "In a passionate, focused and disciplined manner, we are constantly developing products and applications in partnership with our customers - applying the skills and experience of our talented engineers and metallurgists," Steph declares.

Wall Colmonoy brands include Colmonoy® (nickel) and Wallex® (cobalt) for hardsurfacing applications to extend useful life of components and Microbraz® (nickel), Niferobraz® (iron) and CuBraz™ (copper) brazing alloys and brazing aids for joining parts for high-temperature and corrosion applications for aerospace, automotive, energy, nuclear and defence. "Wall Colmonoy

was established when Albert F.Wall met the metallurgists who had originally developed Colmonoy and subsequently purchased the patent and manufacturing processes. The word Colmonoy is the amalgam of the word alloy, and the names of the product's original metallurgists, Cole and Edmonds, who invented the specially formulated superior performing nickel-based alloy. Colmonoy is the original nickel-based hardsurfacing alloy and was originally developed for application on downhole drill bits for the oil industry. It now has many different applications in a variety of industries from glass container to steel," Steph explains. "Wall Colmonoy is also a pioneer and leading expert in high temperature nickel-based brazing. In 1950 the company's then Materials Engineer, Bob Peaslee, invented a new brazing technology involving nickel-based filler metals and hydrogen atmosphere furnaces. This product was named Nicrobraz. Mr. Peaslee pioneered the application of hydrogen braze for aircraft turbine engine components. The technology and process continues today."

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Pouring a melt of Colmonoy® alloy



Wall Colmonoy hosts a Brazing School that takes place at Wall Colmonoy EU Headquarters in Pontardawe and at Brazing Engineering Center in Cincinnati, USA. The first European school was held in October 2014 and Wall Colmonoy Limited (UK) has continued to host the school annually. The school teaches top engineers from around the world about high-temperature brazing. Since 1977 Wall Colmonoy Corporation (USA) has been hosting the brazing school in the USA.

"We have world class employees, with a strong senior management team from a broad range of manufacturing industries; we have highly qualified professionals across the whole business - PHD's, Master's Degrees, Bachelor's Degrees, Diplomas, HNDs and HNCs. To collaborate and partner with our customers around the world, many of us speak many languages. We have extensive foreign language capability in French, German, Spanish, Russian, Turkish, Bulgarian, Punjabi and Urdu."

Recently, Wall Colmonoy Limited has been going through an important cultural and organisational change. "I joined in 2014 and before that worked for 30 years in several different industry sectors for major international PLC's and SME's. My background and experience is in strategic business improvement. We have recruited a new management team these last two years, and we have a very clear direction of where we are going. We are focused on continuous improvement and profitable growth – health, safety and welfare of our employees; quality, cost and delivery of first class products; technical support and customer service. We have applied lean management and manufacturing to our operations and in the last few years, we have made big steps forward in our thinking and quality. This is supported by continuous investment into the company's technical and quality capabilities and manufacturing facilities," Steph says.

Wall Colmonoy is heavily investing in its

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Wall Colmonoy Limited, European Headquarters



WCL Apprentices from 2015 rotation with mentors and senior management

“Our apprentices learn not only about the company, its products and processes, and quality, but it also means that we can ‘develop’ their minds, to align them with company culture and our corporate vision of where we want to be

UK facility and its people. Some key facility investments include introducing ESI ProCAST virtual prototyping software to optimise manufacturing process for precision cast components; adding and upgrading advanced testing equipment for powders in order to meet increased technical demands; and new machines for the machine shop to produce larger parts faster and more efficiently.

In order to develop the next generation of engineers and ensure its growth, Wall Colmonoy Limited launched a Bespoke Apprenticeship Programme focused on developing ‘Home Grown Talent’. It is a structured programme to meet the unique needs of the business and to ensure the development of specialist skills and

technical knowledge needed for its growth.

WCL hires apprentices who take part in a specific learning and development programme that involves rotating through the different divisions of the company for three-month periods, along with college study. The apprentices go one day a week to college to study engineering and learn the job first hand through a structured work programme.

“This is what we call ‘Home Grown Talent.’ In fact, our apprentices learn not only about the company, its products and processes, and quality, but it also means that we can ‘develop’ their minds, to align them with company culture and our corporate vision of where we want to be,” Steph explains.

“We are developing a strong lean culture that is focused on eliminating waste, being lean and agile. We are relentless in our pursuit of excellence and desire to become a world class enterprise



Managing Director, Steph Curtis talking with Castings Manager, Mark Carney

“Our apprenticeship programme is just a part of our training and development programme, there are several other initiatives as well. We have two young engineers doing an MBA (Master’s in Business Administration) and an Engineering Master’s programme, we also have one engineer who is going to do a PhD research project next year on the specifics of what we do. We are doing a lot of this collaborating with the Welsh government.”

Wall Colmonoy’s extensive experience in developing innovative products and continual investments in its people and facility has made WCL a market leader within advanced materials engineering. Indeed the company embodies a culture of rich manufacturing history and longevity that dates back over 75 years, including 48 years of proven industry excellence at its facility in Wales. This trusted market presence and an ongoing process of investment will prove vital in enabling WCL to navigate the market through a volatile period in the wake of the Brexit decision and changing industry demands.

“Wall Colmonoy anticipates major changes to take place in the coming years as economic, technological and sociological demands increase.

In respect of this change we are at the frontier and will continue not only to embrace change, but also to positively influence it through our commitment to leadership, our people, innovation and our continuous improvement philosophy. We are developing a strong lean culture that is focused on eliminating waste, being lean and agile. We are relentless in our pursuit of excellence and desire to become a world class enterprise,” he concludes. “We will continue to develop engineered solutions for our customers, helping them to improve their businesses and to seize new opportunities.”

WCL has a dynamic culture based upon absolute customer focus and customer satisfaction, teamwork, employee engagement and development, relentless continuous improvement and aspiration for excellence in everything it does. 🌟

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