

# JJS to ESCATEC: the past 12 months and the road ahead

One year ago, ESCATEC acquired JJS Manufacturing. The acquisition was born out of the strategic plan to grow ESCATEC into a major player in the global EMS industry.

A significant amount of 'integration' work has been taking place behind the scenes since, so we wanted to share news on the acquisition and the evolution of the company over the past twelve months. Both JJS Manufacturing and ESCATEC's customers have benefitted from the extra value provided by the union of two strong and complimentary EMS providers.

## We now have a global footprint and offer more services

Since the acquisition, ESCATEC has continued to grow in expertise, technology, and size. ESCATEC now has production facilities in Lutterworth, UK; Chomutov, the Czech Republic; Penang and Johor Bahru, Malaysia; and Heerbrugg, Switzerland. In addition, ESCATEC also has strategic design and manufacturing partnership agreements in place in Wisconsin and Croatia. The company currently has a combined area of over 400,000 square feet of connected facilities and a team of over 3000 highly trained and committed employees across the globe.

Over the past year, the group has re-engaged with customers wanting a footprint in Europe and also those that would benefit from our high-tech

design and development centre in Switzerland.

## Low-cost, high volume option

The acquisition combined both companies' individual strengths: JJS has been producing complex, highly configurable, low-volume, electronic, electrical, and electro-mechanical assemblies since 1983. ESCATEC's history has been supporting OEMs in various sectors, including medical and automotive, with product design and development and high-grade electronics and box build manufacturing solutions.

However, in a global world, some projects require the advantages of low-cost, high volume, manufacturing capabilities. ESCATEC's factories in [Malaysia](#) offer precisely that. JJS Manufacturing and ESCATEC's business philosophy prioritises precision and quality, but together we have been able to offer our customers more production options.

Thanks to the acquisition and the combination of these complementary skill sets, our existing customers now benefit from an enhanced 'end-to-end' service offering. For example, a client in the automotive sector that has historically dealt with one of our Malaysian factories for PCBA and box build products is now in conversation with our Czech facility regarding a larger format electro-mechanical assembly. Being able to support new and existing clients with our entire product portfolio, not just part of it, adds real value and reduces the need to partner with several different EMS providers.

## Outsourcing product design to ESCATEC

Before the acquisition, JJS Manufacturing could not offer in-house product design and development services to its customers. However, thanks to the 40-strong [in-house design team](#) based in Switzerland, with demonstrable experience in bringing medical devices and micro-opto-electro-mechanical-systems (MOEMS) to market, this is now a value-added service they can support.

When partnering with ESCATEC, our customers benefit from a reduced time-to-market thanks to how our in-house product design and development team work alongside our manufacturing plants. Our process makes the transition between ideation, prototyping and volume manufacturing seamless, and our customers are able to place products onto the market quickly at a competitive price, safe in the knowledge all regulatory requirements have been considered during the early stages.

## ESCATEC's medical device development

If there is one type of product that has been in the limelight over the past few years, it's medical devices. With governments investing in post-pandemic healthcare, the global medical device market is expected to grow from [\\$455.34 billion in 2021 to \\$657.98 billion in 2028](#), with a compound annual growth rate of 5.4%.

This is a significant opportunity for medical device developers who previously wanted to develop medical devices with JJS. ESCATEC supports customers by designing and manufacturing medical devices from respirators and ventilators to inhalers and has been making medical devices for decades. ESCATEC designs and manufactures a diverse range of medical-related prototypes, electronic assemblies, and box builds for a global customer base.

For customers operating in the demanding and highly regulated medical devices space, ESCATEC offers a complete value chain—from conceptual design, prototyping, certification, and supply chain management, to mass production and after-sales service. The main operations centres are based in Heerbrugg, Switzerland and Penang, Malaysia.

ESCATEC's Design & Development Centre and testbed for advanced technology are based in Switzerland where the initial and advanced activities are carried out. Mass production and after-sales support mainly happen in our Malaysia facility. Both our D&D and production processes are validated to ISO13485. Customers have noted ESCATEC's ability to provide a very fast turnaround for prototypes and the comprehensive traceability system. We make continuous investments in advanced equipment and employee training to produce the best quality medical devices as we are looking to be a long-term partner for our customers.

## ESCATEC has grown significantly over the past year

Globally, 2021 was tough, but it was also the year ESCATEC supported one of its most significant contracts to date. The EMS provider manufactured two products for a prominent European customer designing real-time supply chain monitoring technology that offers precise location tracking.

ESCATEC had to work to incredibly tight deadlines as the customer had recently won the contract to provide a pharma giant with cold-chain monitoring services for the global supply of its COVID-19 vaccine. They needed a partner that could set up and scale quickly with them in order to fulfil their growth objectives.

A New Product Introduction (NPI) team applied DFM (Design for Manufacturing) focusing on quality and discovered several design enhancements that would improve the effectiveness of the data loggers. These modifications were swiftly communicated to the customer, and the designs were made ready for the next stage. The entire turnaround time from receiving the initial designs to making the recommended enhancements took less than two weeks.

Upon completion of the NPI process, ESCATEC's MYCOM team took over to ensure the new assembly lines would be ready. This involved investing in new machinery, setting-up additional production lines and multiple new workstations, getting jigs and fixtures ready, identifying and implementing process and quality improvements, and installing test equipment and routines.

In total, seven new assembly lines were initially created with 150 production operators assigned to the project, capable of manufacturing and delivering over 25,000 units per week. Since the initial launch, and as the rollout of the vaccine continues globally, the volumes have increased by circa 50%, and ESCATEC has also supported the customer with a series of upgraded product designs and initiatives.

## We are part of the shift towards reshoring

First COVID-19 and now the [war in Ukraine](#) continue to cause untold supply chain disruption. The consequence has been a shift in strategy towards reshoring or regionalising production. Luckily, ESCATEC's global operation means that we are well placed to support OEMs looking to move their manufacturing to more local markets and territories.

ESCATEC first witnessed OEMs reconsider their manufacturing options when COVID-19 started to take hold of supply chains, but the company expects the war in Ukraine to cement strategic change. Over the past year, we have been talking to new clients about their existing manufacturing partnerships and current concerns. They tend to centre around extended shipping times, increased import tariffs, and a lack of control regarding component supply chains.

Despite unit pricing from China remaining competitive, ESCATEC recognises that many OEMs are now more focussed on the total cost of ownership and their ability to deliver products quickly into the markets where their customers are located. The EMS provider believes that supply chain disruptions experienced around the world over the last couple of years have forced a shift in priorities; this is affecting OEMs' decision-making process when deciding which manufacturing partner to work with.

With sites in the UK, Switzerland, the Czech Republic, Malaysia, and design and manufacturing partners in the US and Croatia, ESCATEC is well placed to weather this change. Multiple locations provide customers with a variety of options and levels of flexibility when reshoring manufacturing.

However, OEMs wanting to reshore production are facing several challenges—especially those that originally partnered with an ODM. Specifically, they are having trouble accessing the build data, drawings, and software they need to transfer production back to a 'local' EMS provider.

We are currently talking to one OEM that designs and sells air purification systems. They have found themselves with minimal data at a time when they

are experiencing rapid growth and need an alternative solution. To support the transfer away from their existing supplier, we are now in the process of reverse-engineering the product and data from a golden sample.

## ESCATEC's electromechanical capabilities

JJS Manufacturing has a long history of working with wire and cable interconnection between boards and sub-assemblies and electrical wiring of switch and instrument panels as well as sophisticated control cabinets. ESCATEC's acquisition of JJS has enhanced capabilities and expertise in electro-mechanical manufacturing allowing us to re-engage with previous customers who required this service.

## Continuing to invest in people and equipment

One of JJS Manufacturing's central pillars historically has been to continually invest in people and equipment, which coincides with ESCATEC's philosophy. The Group is currently focused on developing existing talent and investing in new staff in every location.

In the UK, the annual Electro-Mechanical Apprenticeship campaign has started with the view of expanding the team so that the needs of both new and existing clients are met. Also, as a result of the recent acquisition, several new roles and promotions across the group have taken place, with some staff taking advantage of changes to internal structures, strategy and additional responsibilities as part of the 'integration' process. ESCATEC looks forward to investing in and promoting the best talent in the business.

In terms of additional investment in equipment and technology, to aid efficiency and quality gains, the UK site will be installing four new Kardex automated material storage and retrieval systems, along with 3D AOI, an additional X-Ray machine, and a Coordinate Measuring Machine during 2022.

## Here's to continued success

Despite the constant challenges the world continues to throw at us we do what we know best; find a solution, move forward, and come out the other side stronger. We are very excited about the road ahead and ESCATEC has an incredibly strong service offering. We currently support a significant number of market-leading technology companies, and we are looking forward to supporting more in the years to come.