

Award-Winning digital strategy solutions from a processing equipment pioneer

James Moore, Hosokawa Micron Ltd's Managing Director, reveals the inside story of how the process manufacturing equipment pioneer worked with control and automation technology experts, Peak Technology Solutions to create ground-breaking digital strategies and software, specifically with process manufacturers in mind.

Hosokawa Micron Ltd was proud to win Chemicals Northwest's prestigious 'Engineering Firm of the Year' award 2020 in collaboration with Peak Technology Solutions.

As a powder processing innovator for more than a century, our industry-leading equipment and expertise is trusted by high-end customers from sectors including chemicals, nuclear, pharmaceuticals, agrochemicals, homecare, nutraceuticals and cosmetics.

Cutting Edge Technology Collaborators

Always at the forefront of evolving industry requirements and customer trends, we recognised more than two decades ago that digital technology would be a future game-changer in the manufacturing industry and a critical requirement for us and also our customers. So, we entered the wonderful world of Industry 4.0 and the Industrial Internet of Things (IIoT).

We identified the need to not only integrate Industry 4.0 principles into our own powder processing, but into our customers' processes too, at a time when available technology was less advanced and very expensive. A degree of success was achieved in the very early days, but at the time, it was cost-versus-benefit prohibitive. We learnt pretty quickly that we couldn't implement our futuristic ideas alone, so looked for creative, skilled, like-minded and visionary technology specialists to help, partnering with Peak Technology Solutions and electronics giant, Siemens to put in place the technology we needed to achieve our vision for optimised powder processing. Our solution, **Hosokawa Gen4**, is now a tried and tested software that can effortlessly handle production problems and maximise processing opportunities. Its unique 'architecture' allows for processing continuous and non-continuous, high-value data in open and closed loop scenarios and features machine-learning capabilities that offer continual manufacturing improvement. The formula has been grounded in our theory that the human element is a vital component of a successful digital strategy. To this end, accumulated practical knowledge is captured and integrated into the software to improve its relevance and effectiveness.

- **Cloud services** mean our customers can utilise remote software environments for convenience and optimisation
- **Big Data Analytics** mean our customers benefit from operational intelligence gathered from the manufacturing information produced by the plant
- **Cyber Security** allows IT and OT integration to take place securely, allowing for the safe exchange of information

between the business and manufacturing layers

Risk and Reward

Undoubtedly, we took a risk by moving away from the comfort of existing control technologies to implement a brand-new, bespoke platform that perfectly exploits the foundations of Industry 4.0, but it has paid off in the knowledge we have acquired, the strategic business decisions we have been able to make and our unique position – that of a process manufacturing expert with proven digitalisation expertise which can be applied to data-driven manufacturing now and in the future.

Operational Benefits for Hosokawa Micron's Contract Manufacturing Service

Apart from the equipment side of the business, we have a contract manufacturing arm – part of our Technical Services division. Handling everything from hazardous materials to food grade ingredients, our dedicated facility gave us the perfect opportunity to hone, test and adopt our Hosokawa Gen4 technology in an authentic, real-time scenario, enabling the team to offer a more cost-effective final product of the highest quality. Overall, we have improved productivity, processes and batch quality and reduced machine downtime, implementing proactive maintenance programmes for supply chain efficiencies and more effective people management. Operational data cascades throughout our business processes, allowing for quicker, more effective decision-making, transparency and management in real time.

Hosokawa Gen4 as a Product and Service

Today, Hosokawa Gen4 goes from strength to strength, attracting interest from new and existing customers who are eager to adopt a digital transformation strategy and wish to benefit from our unique products and expertise. Our software and digital strategy solutions are used by equipment customers in the food and cosmetics industries, while our contract manufacturing services have been of considerable benefit to blue-chip customers from the worlds of pharmaceuticals, food and beverage and chemicals. We now have a more strategic approach to our business/product mix, successfully combining high volume and low margin projects with ultra-specialised lower volume, higher margin contracts.

The future is bright and exciting, thanks to the input of our excellent technology partners, including Peak Technology Solutions.

For further details please email: info@hosokawagen4.com or visit <https://www.hosokawagen4.com/>

James Moore, Managing Director, Hosokawa Micron.

