

Closing the skills gap

Sulzer educational initiatives and programs empower the next generation of engineers

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Training the next generation of aspiring engineers is vital for delivering the technical innovations of the future. With rotating equipment technology commonplace in critical infrastructure, Sulzer is ensuring that new blood enters the industry through apprenticeships, educational opportunities and collaborations with universities.

Encouraging young people to study science, technology, engineering and mathematics (STEM) subjects is vital for the future of humanity. The skills gap has been much publicized, especially in the engineering sector. With technology permeating all areas of daily life, it's imperative young engineers get the support they need to start their careers.

Almost two centuries of nurturing talent

“For nearly 190 years we have worked to nurture the next generation of engineers. At Sulzer, people can work with the latest technologies, engage with exciting projects across industry and experience different cultures. We want to empower aspiring technical experts to reach their full potential,” says Oliver Keller, Head of HR Services EMEA at Sulzer.

Sulzer offers a variety of fully-funded apprenticeships with college-based and practical learning at service centers in Sulzer's global network. As well as receiving increasing pay throughout, young people are mentored by Sulzer experts, with the opportunity to be sponsored and achieve higher qualifications. Successful apprentices get to specialize in their area of interest and can enter full-time employment with the company.

Collaborating with world-class engineers

A prime example of a successful Sulzer apprentice is Greig Johnstone, who works to build efficient industrial pumps for the UK's energy supply. Applying as a Fitter/Turner in July 2018, Greig has collaborated with engineers nationwide, experiencing multiple technical departments including the machine and fitting shops, as well as testing seawater injection pumps and fixing compressors.

With sponsorship from Sulzer, Greig has achieved a Higher National Certificate (HNC) and Higher National Diploma (HND), the latter with an A grade. After completing his apprenticeship in July 2022, he started an engineering degree at Robert Gordon University. His hard work was even recognized at The Association of Electrical and Mechanical Trades (AEMT) Awards 2022, where he was presented with the Rising Star Award.

Learning while working internationally

The global collaborative culture between Sulzer service centers allows young engineers to educate themselves while working internationally. Celina Thuro is studying Mechanical Engineering at the DHBW University, and initially joined Sulzer's facility in Bruchsal, Germany. For her fifth semester however, she has

moved to Sulzer's Norway facility to take part in landmark projects, expand her horizons and experience local culture.

Celina has enjoyed the experience: "Everyone in at Sulzer is friendly and always ready to answer questions – even when they're busy! They really care about explaining things properly and take the time to make sure that I fully understand what we're working on. It's great to learn the theory and then see it applied in the real world."

During her time with Sulzer, Celina has worked with complex pump equipment and tackled operational challenges, even designing a new flange for use with different pumps on a test bed. While experiencing a new country, Celina is still gaining the academic and real-world knowhow needed to achieve her engineering aspirations.

Involving academia in real-world projects

Sulzer goes further than offering apprenticeships and internships to upcoming engineers, forming close collaborations with educational institutions. The company is working directly with universities and colleges to provide students with real-world engineering experience, enabling them to add value to projects and operations.

The Venlo Service in the Netherlands, for example, recently collaborated with Fontys University of Applied Sciences, inviting engineering students to take part in a project involving the Taguchi method. This approach uses statistical analysis of design or process parameters during development to expedite testing and reduce the negative social impact of a product. The students were given an assignment to propose improvements to the polishing and grinding of gas turbine blade coating samples, with the aim of reducing scratches and process times.

Paul Thommassen, Process Engineer at Sulzer, led the project: “We spent two days with the students at Sulzer. After a workshop tour, including seeing the polishing and grinding process in action, we moved to the classroom to learn the Taguchi method. The students were then split up into teams, each of which proposed a test schedule for sample preparation. Our lab then carried out the student’s tests, with results sent back to the university. Afterwards, we all met up to see each team’s results.”

A successful student test schedule was adopted by the service center in its quality documentation. As a result, the students directly contributed to improving real-world processes.

Jill Vloet, who is studying Industrial Product Design with Mechanical Engineering as an option, took part: “I learn the most from these internships and other practical assignments. This also applies to the project we carried out with Sulzer - I think it is a good way to prepare students for entering the working world.”

Engineering the next generation

For any engineering company, developing for the future doesn’t just rely on state-of-the-art technology, it means bringing new talent and ideas into the business. With its range of initiatives and opportunities for young people, Sulzer is ensuring that the next generation of engineers is gaining the experience and knowledge needed to deliver the innovations of tomorrow.

Image captions:



Image 1: Sulzer offers a wide variety of fully-funded Level 3 apprenticeships



Image 2: Greig Johnston, a former Sulzer apprentice, was recently recognized for his hard work at The Association of Electrical and Mechanical Trades (AEMT) Awards 2022



Image 3: Celina Thuro, studying Mechanical Engineering at the DHBW University, began her journey at Sulzer Pumps in Bruchsal (Germany), and has moved to Norway to continue her experience



Image 4: Students collaborated with engineers at the Venlo service center to help improve the quality control process for gas turbine coating samples, gaining valuable real-world experience

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Sulzer is a global leader in fluid engineering. We specialize in pumping, agitation, mixing, separation and purification technologies for fluids of all types. Our customers benefit from our commitment to innovation, performance and quality and from our responsive network of 180 world-class production facilities and service centers across the globe. Sulzer has been headquartered in Winterthur, Switzerland, since 1834. In 2021, our 13'800 employees delivered revenues of CHF 3.2 billion. Our shares are traded on the SIX Swiss Exchange (SIX: SUN).

For more information, visit www.sulzer.com

Press contact: Sulzer**Simon Aspinall****EMEA Marketing Manager PE & RES**

Tel: +44 (0)1132 701244

simon.aspinall@sulzer.com**Editorial contact: DMA Europa****Kiki Anderson**

Progress House, Great Western Avenue Worcester, Worcestershire, WR5 1AQ, UK

Tel: +44 (0) 1905 917477

news.dmaeuropa.comkiki.anderson@dmaeuropa.com