

# FAB S and LAB S

## Spectrum – One Man's Vision Sees the Light



At its Munich site, where the facility has recently quadrupled in size from the original building on the plot, the sign at the entrance may read Spectrum Elektrotechnik GmbH, but the company is essentially Peter von Nordheim, a man who has dedicated his working life and financial security on developing the company from humble beginnings to a global engineering enterprise.

von Nordheim started the business in 1981, together with a technician and a bookkeeper, four kilometers from the current site in a two-room office with a total space of 60 m<sup>2</sup>. One room was the office and the other was for manufacturing, which housed his first small turning machine that his father bought him for about DM10,000.

It was a tough time with no interest from banks, with the only offer being: "If your company exists in two years time come back then!" Undeterred, von Nordheim asked local companies if they had any engineering problems and from there he picked up orders for work that no one else wanted. As a result he rented a 400 m<sup>2</sup> room for manufacturing in another building 200 m away.

In the mid 1980s von Nordheim heard that the city of Munich would sell land to companies who wanted to own their own facility. He says that he applied 'just for fun,' never expecting that such a small start-up company would be successful but he was offered a 1,960 m<sup>2</sup> plot.

Originally he had difficulty finding financing, with the bank charging high interest and demanding a minimum of 10 percent of his own money for the necessary investment, which he did not have. He eventually found a bank that would provide the full amount through state loans, provided that von Nordheim take out life insurance for DM 300,000, which he happily accepted. The company moved to the site in 1988, with a staff of about 10 people.

The original building on the site was roughly 1,300 m<sup>2</sup>. It was extended with a further 1,300 m<sup>2</sup> in 2004 and doubled in size again in 2014 after acquiring an adjacent 2,000 m<sup>2</sup> plot when a second building, linked to the first, was added, with a capacity of 2,600 m<sup>2</sup>. The transition into the new building was completed in 2016.

The original building is now dedicated to office space and shipping/receiving. The machine shop that was housed in the basement so cramped that staff had to 'walk like penguins' to pass between the machines, has now moved to a 800 m<sup>2</sup> floor in the new building, which for the first time offers room for expansion.

Similarly, assembly occupies 800 m<sup>2</sup>, engineering occupies another 800 m<sup>2</sup> and there has been significant investment in new machinery/equipment. These include analog network analyzers to 71 GHz, including two in-house designed cable cutting and stripping machines, along with sophisticated brazing equipment, a heat treatment oven, a vacuum leak tester, highly sophisticated laser equipment, and many CNC turning and milling machines. Add to that ultrasonic cleaners, vacuum ovens and inspection microscopes for every assembler, with a clean room in the pipeline. With the exception of surface treatment the company does everything in-house from design, manufacturing every single part, assembly and testing.

The extension provides the opportunity to capitalize on the prospect of big orders. For example, the company builds duplexers, which are used in long range radar applications, but such expensive items are usually part of a long term plan that requires Ministry of Defense (MoD) funding. However, when those funds are available Spectrum is in a position to fulfill the orders.

Once a three-man operation, the company—fueled by von Nordheim's conviction and hard work—now employs 65 onsite and is geared up, ready for the future.

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