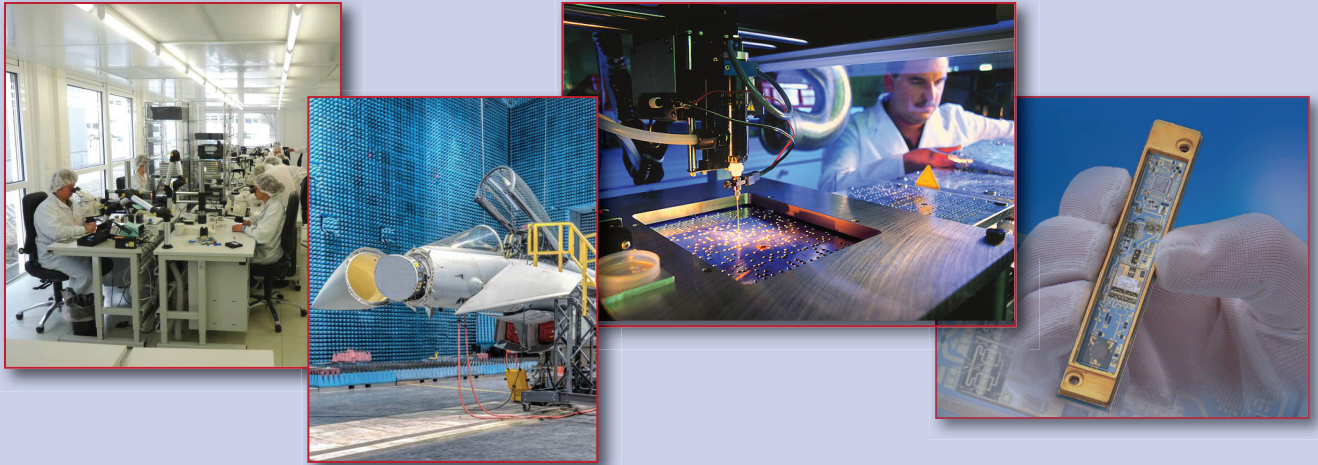


FAB S and LAB S

HENSOLDT—Sensor Solutions That Detect and Protect



While HENSOLDT is a new name in the defence industry, the name is not new, reflecting the legacy of Moritz Carl Hensoldt, born in Germany in 1821 and remembered as a pioneer in optics and precision mechanics. The company named in his honor was spun out of Airbus' defence electronics segment in early 2017, with a mission to provide sensor systems for radar, electronic warfare (EW), avionics and optoelectronics. HENSOLDT, based in Munich, generates more than €1 billion in revenue, 47 percent from Germany, 25 percent from the rest of Europe and the remaining 28 percent from the rest of the world. The firm employs some 4,500, a staff described as highly skilled and fascinated by high-end technology.

HENSOLDT's technology is found in many European defence systems: flying on the Eurofighter, Gripen and Rafale fighters, sailing on the German F125 frigate and riding in the Puma and Leopard armored vehicles. HENSOLDT is building the new Captor-E phased array radar for the Eurofighter. After delivering two production-ready active antennas during 2018, the first series production deliveries begin this year. The firm is also applying phased array technology to IFF systems for warships and a collision avoidance radar that will help commercial and military pilots detect and avoid UAVs. The company's heritage in space extends for nearly 60 years, leading to space-qualified products on the recent TanDEM-X earth observation and EDRS-A data relay satellites.

To support the development and production of these advanced radar, EW and avionics systems, HENSOLDT maintains a strong RF/microwave technology portfolio, from design through manufacturing. While the company currently sources semiconductor devices such

as GaAs MMICs and GaN transistors from external foundries, it integrates them with other components internally, to fabricate complex, multi-function modules. The RF/microwave operation comprises a staff of some 100, with 2,000 m² of class 10,000 clean room—one of the largest clean room facilities in Europe.

HENSOLDT's assembly capabilities include eutectic and conductive epoxy die attach and the full range of bonding processes: ball, wedge, ribbon, gap welding and conventional soldering. For defence systems, the modules must be hermetically sealed, which is accomplished with seam or laser welding or special solder processes. HENSOLDT's comprehensive RF/microwave test capabilities handle all the specialized test flows dictated by the various programs and are supplemented with chambers for the normal environmental tests, such as temperature, vibration and shock.

For the development and production of phased array systems, HENSOLDT's manufacturing capacity will produce around 25,000 T/R modules per year, which can be doubled to meet additional program demands. For more complex, highly integrated modules, such as those used in broadband EW systems, the facility can assemble and test approximately 600 modules per year.

Today, Herr Hensoldt would likely be amazed by the widespread use of RF/microwave technology for surveillance and reconnaissance, compared to the optical telescopes and binoculars he developed in the mid-1800s to accomplish the same mission. Yet his relentless drive for innovation still inspires the company that bears his name, as this generation applies the newest technology to detect and protect.

www.hensoldt.net