

► RHEINMETALL UK

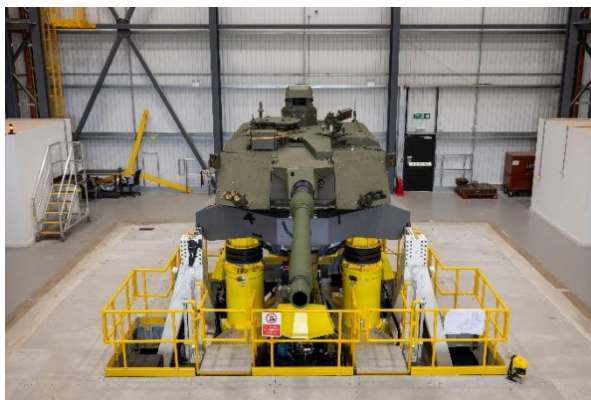
17 September 2026

Rheinmetall UK strengthens UK testing capability with new Vibration Test Facility

Telford, UK - 17 September - Rheinmetall UK has strengthened the UK's sovereign defence engineering capability with a significant investment in a new Vibration Test Facility (VTF) at its Telford site.

Currently supporting the development of Challenger 3, the British Army's next-generation Main Battle Tank, the facility will help engineers test and assure complex defence platforms and systems in the UK, reducing reliance on lengthy physical trials and providing faster, detailed evidence to support engineering decisions.

The investment brings advanced testing infrastructure, specialist engineering expertise and high-value skills together in Telford, strengthening the UK defence industrial base and building capability that can support current and future defence programmes.



The VTF can recreate the demanding vibration and movement experienced by military vehicles and equipment in operation. Engineers can use real-world data to reproduce these conditions in a controlled environment, allowing them to assess reliability, identify potential issues and understand how platforms and their systems are likely to perform over extended periods of service.

For Challenger 3, this provides an additional way to understand how the vehicle and its systems respond to demanding operational conditions. The facility complements physical trials, modelling and other engineering analysis, helping build the evidence required to support the reliability and performance of the platform.

Crucially, the VTF has been designed as a long-term UK engineering capability rather than for a single programme. Its scale and flexibility mean it has the potential to support future defence platforms and technologies, as well as applications in sectors including aerospace, automotive, rail, energy and civil engineering.

Capable of accommodating structures and assemblies weighing up to 40 tonnes, the facility can reproduce complex combinations of movement, including vertical motion, pitch and roll. This enables engineers to recreate demanding operating conditions and conduct accelerated durability and reliability testing without relying solely on extended physical trials.

► Key facts

- Rheinmetall has invested in a new Vibration Test Facility (VTF) at its Telford site.
- The VTF is currently supporting the development of Challenger 3.
- The capability recreates the demanding vibration and movement experienced by military vehicles and equipment in operation.
- The capability reduces reliance on lengthy physical trials.
- The facility will help engineers test and assure complex defence platforms and systems across the UK.

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Rob Hunter, Vibration Test Manager, said: “The VTF gives our engineers a powerful new way to understand complex platforms. We can recreate demanding operational conditions, measure how equipment responds and use that evidence to make better-informed engineering decisions.

“Challenger 3 is an important application, but this is a capability we have deliberately designed with the future in mind. Its flexibility means we can adapt it to different engineering challenges, supporting future programmes and technologies while retaining critical engineering knowledge and skills here in the UK.”



The facility is supported by specialist engineers and technicians working across mechanical and electrical engineering, testing, instrumentation, software and data analysis. It will also provide opportunities to develop high-value, transferable skills among apprentices and the next generation of British engineers and technicians.

By combining advanced infrastructure with British engineering expertise and skilled people, the VTF demonstrates Rheinmetall UK’s continued investment in sovereign UK defence capability.

As the UK strengthens its defence industrial base, investments such as the VTF help build the domestic skills, infrastructure and industrial capacity required to develop, assure and support increasingly complex defence equipment.

The VTF therefore represents more than a new piece of testing infrastructure. It is a long-term investment in the people, technology and sovereign engineering capability needed to support Challenger 3, future British defence programmes and the technologies of tomorrow.

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Notes to Editors

About the Vibration Test Facility

The Vibration Test Facility is located at Rheinmetall UK’s manufacturing site in Telford, Shropshire.

The facility provides a large-scale dynamic testing capability designed to recreate representative vibration, shock and movement experienced by complex platforms and structures during operation.

Its capabilities include:

- Testing structures and assemblies weighing up to 40 tonnes.
- Reproducing three principal axes of platform movement: vertical, pitch and roll.
- Applying controlled vibration and shock profiles.
- Using real-world operational data to create representative test conditions.
- Supporting accelerated durability and reliability testing.
- Testing large platforms, structures, components and integrated subsystems.

While developed with defence applications in mind, the facility has potential applications across a range of sectors where large, complex structures and systems need to be tested under demanding dynamic conditions, including aerospace, automotive, rail, energy and civil engineering.

The VTF forms part of Rheinmetall UK’s investment in advanced engineering, manufacturing and testing capability in Telford, supporting the development of sovereign skills and industrial capacity in the UK.