

Press information

Kyocera invests in the future of ceramic-to-metal assemblies technology

New manufacturing facilities, consolidated process expertise and the expansion of brazing technology are strengthening Mannheim's position as a centre for sophisticated industrial and semiconductor applications.

Kyoto/Esslingen, 27th October 2026. Kyocera systematically expands its manufacturing expertise in [ceramic-to-metal assemblies](#) at its Mannheim site. By investing in state-of-the-art turning and milling technology and additional furnace capacity, the company is strengthening an end-to-end process chain: from ceramic components and high-precision metal machining, through joining, to specialist cleaning. Customers benefit from short coordination channels, a high degree of technical flexibility and reproducible processes, largely provided from a single source.

End-to-end manufacturing ensures process reliability

At its Mannheim site, Kyocera manufactures ceramic components, high-precision metal parts as well as the associated joining connections. The key production steps are closely aligned and implemented internally. This enables requirements relating to materials, tolerances, cleanliness and joint quality to be considered jointly at an early stage of the project. Integrated manufacturing reduces interfaces and external transport, speeds up technical feedback and increases process reliability.

Investments increase precision and capacity

By purchasing a new work machine, Kyocera extends its capabilities for the precise, end-to-end machining of complex metal components. The turning and milling centre facilitates the cost-effective production of complex geometries with as few set-ups as possible, thereby contributing to high dimensional accuracy and stable processes.

In autumn 2026, the company's machine park is set to be expanded to include a universal lathe. This will provide additional turning capacity and increase flexibility when dealing with different component sizes and production volumes. Furthermore, the addition of a new brazing furnace is planned for 2027. Kyocera thereby continues its expansion of capacity for complex brazing processes and creates the necessary conditions to meet growing production demands.

Expertise in materials for demanding applications

Ceramic-to-metal assemblies combine the electrical insulation, temperature resistance and wear resistance of technical ceramics with the mechanical functionality of metallic materials. The joints used include ceramic-stainless steel and ceramic-titanium joints, amongst others. For additional specialist processes, such as laser welding or electron beam welding, Kyocera works with qualified external partners where required.

The final precision machining of assemblies consisting of multiple joined components following brazing and welding processes is an established part of the manufacturing process. During this process, any thermal distortion is specifically compensated for, with the aim of maintaining tight dimensional, form and positional tolerances and achieving a high degree of repeatability.

From semiconductor manufacturing to ultra-high vacuum

The ceramic-to-metal assemblies are used, amongst other things, in wafer inspection and metrology systems, plasma etching and deposition equipment, as well as in electron beam applications. Other areas of application include vacuum feedthroughs and assemblies for high-vacuum and ultra-high-vacuum systems, where leak-tightness, electrical insulation and long-term reliability are crucial.

Technical advice and professional cleaning

Kyocera supports customers right from the early stages of a project – from material selection and joining techniques, through production-oriented design, to the assessment of application-specific requirements. In addition, multi-stage cleaning processes are available at the site. Depending on the component and requirements, these include mechanical pre-cleaning, ultrasonic-assisted wet cleaning, deionised water rinses, alcohol-based precision cleaning and drying processes, right through to vacuum drying. As cleaning can be carried out immediately after machining, soldering or assembly steps, additional handling steps and potential sources of contamination can be reduced.

The press material is available for download via the following link:

<https://spgroup.box.com/s/m4pbaepzpcck44flh85qyemt4ctvxka2h>



**Kyocera's focussing unit with high-performance ceramic (left)
and high-voltage feedthrough (right)**



**Kyocera's insulator for ion source (left) and insulation
component with ceramics (right)**



For more information on Kyocera: www.kyocera-fineceramics.de

About Kyocera

Kyocera has been successful in Europe for over 50 years. From its European headquarters in Esslingen am Neckar, KYOCERA Europe GmbH operates 27 sites including manufacturing facilities, with products ranging from fine ceramics, automotive, semiconductor and optical components to components for medical products, industrial tools, LCDs, touch solutions, industrial printing components, and consumer goods such as kitchen and office products.

Kyocera's high-performance ceramic products are produced and distributed by [KYOCERA Fineceramics Europe GmbH](#), a subsidiary of [KYOCERA Europe GmbH](#). The Kyocera Group is one of the world's leading providers of high-performance ceramic components for the technology industry, offering over 200 different ceramic materials, as well as state-of-the-art technologies and services tailored to the specific needs of each market.

KYOCERA Europe GmbH is a company of the [KYOCERA Corporation](#) headquartered in Kyoto/Japan, a renowned supplier in semiconductor, industrial and automotive components as well as electronic components, printing and multifunction systems, smart energy systems, and communications technology. Kyocera is one of the most experienced technology producers, with more than 65 years of industry expertise. The Kyocera Group comprises 279 subsidiaries (31 March 2026). With around 73,800 employees, Kyocera generated net annual sales of around EUR 11.83 billion in the 2025/2026 fiscal year.

Kyocera appears on the 2026 Forbes list "Global 2000" of the world's largest publicly listed companies. In addition, Kyocera has received, for the fourth time, the grade A in the CDP rating (2025) in the area of climate and, for the year 2025, a silver rating in the EcoVadis sustainability survey. Already for the tenth time, Kyocera has been recognized by Clarivate as a "Top 100 Global Innovator 2026" as one of the world's innovation drivers.

Kyocera also takes an active interest in cultural affairs. The Kyoto Prize, a prominent international award, is presented each year by the Inamori Foundation – established by Kyocera founder Dr Kazuo Inamori – to individuals worldwide who have contributed significantly to the scientific, cultural, and spiritual betterment of humankind (equivalent to approximately €539,000 per prize category).

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