

## **Press Release**

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## First images from Mars will be seen through Jenoptik lenses

When NASA launches the Mars 2020 mission the first images back to Earth in February of 2021 will be seen through lenses designed and engineered by Jenoptik.

The Jenoptik Light & Optics team in Jupiter, FL have been developing three types of mission critical lenses for use with the Mars Rover's engineering cameras. Navigation lenses will capture the first live video footage from the mission as the rover explores the surface of Mars, crucially important when the rover drives autonomously. Hazard avoidance lenses will provide images that will help the rover identify obstacles and allow NASA engineers to see the movement of the robotic arm during sample collection. Finally, a cache lens will verify that a complete collection of the rock and soil samples have been achieved. Due to the cache lens' proximity to the samples collected, to avoid contamination, the cleanliness requirements are extremely challenging.

All three lens types were built in a Jenoptik class 5 clean room with state-of-the-art filtration technology for high-precision optical assemblies. Custom test equipment was developed at Jenoptik to measure the optical performance during the demanding temperature extremes to withstand the conditions on Mars. Jenoptik performed several environmental tests in vacuum and over a wide temperature range with the lowest temperature being -135°C.

"Jenoptik is accustomed to demanding applications requiring expertise in the <u>design, manufacture, and testing of complex optical assemblies</u> in the fields of semiconductor, medical devices and defense industries", said Jay Kumler, President of Jenoptik Optical Systems in North America. "We are very proud of the technical challenges and rigorous testing we have overcome which has really benefited the entire company, and we are honored to be a part of the monumental mission to Mars."

For additional information on Jenoptik's capabilities, please visit www.jenoptik.com

Jena & Jupiter, Florida/USA, July 23rd, 2019



## About Jenoptik's Light & Optics division

Jenoptik is a globally operating technology group. Optical technologies are the very basis of our business with the majority of our products and services being provided to the photonics market. Our key target markets primarily include the semiconductor equipment industry, the medical technology, automotive and mechanical engineering, traffic, aviation as well as the security and defense technology industries. Jenoptik has about 4,000 employees worldwide.

The Light & Optics division is a global OEM supplier of solutions and products based on photonics technologies. Jenoptik provides a broad portfolio of technologies combined with deep experience of more than 25 years in the fields of optics, laser technology, digital imaging, opto-electronics and sensors. Our customers are leading machine and equipment suppliers working in areas such as semiconductor equipment, laser material processing, healthcare & life science, industrial automation, automotive & mobility and safety, as well as in research institutes.

As a development and production partner, the Light & Optics division focuses on advancing cutting-edge technologies to improve our customers' system performance and ultimately realize product outcomes that reach new heights enabled by our highly-integrated photonic solutions. The systems, modules and components based on photonics technologies help our customers overcome their future challenges.

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