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For Immediate Release:

CleanWeld™ – A new approach to fiber laser welding

Santa Clara, CA, October 24, 2018 – The new Coherent CleanWeld technology represents an integrated approach to fiber laser welding that delivers up to 80% spatter reduction, as well as minimal cracking and porosity. In addition to improved process consistency, it allows certain welding processes to be performed with up to 40% less laser power.

Coherent's expertise in delivering unique beam intensity profiles, including the new "ARM" fiber laser technology, is just one aspect of the CleanWeld approach. Our process-optimized delivery optics and focusing heads, extensive welding knowledge, and in-house applications development capabilities provide customers with laser welding solutions tailored to their specific requirements.

"While fiber lasers have been used in welding for over a decade, many end users are still seeking to improve part quality, production throughput, and process costs," reports Frank Gäbler, Director of Product Marketing. "Coherent provides an integrated solution that is much more than just the laser itself. This is necessary because there are numerous factors besides the laser that affect the welding process. The real goal is to control and maximize the stability of the keyhole and melt pool during the welding process – that's what produces superior results. But actually accomplishing this can require a variety of techniques that range from changing the intensity distribution of the focused laser spot, to introducing beam motion, to other factors like controlling vapor evacuation. CleanWeld addresses all of these areas, and the benefits of this approach are already being adopted in diverse applications, including zero-gap welding of galvanized steel, automobile powertrain component welding, and aluminum and copper welding for electric car batteries."

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Founded in 1966, Coherent Inc. is one of the world's leading providers of lasers and laser-based technology for scientific, commercial and industrial customers. Our common stock is listed on the Nasdaq Global Select Market and is part of the Russell 1000 and Standard & Poor's MidCap 400 Index. For more information about Coherent, visit the company's website at <https://www.coherent.com> for product and financial updates.