IPG Photonics Announces New Generation of High Power Fiber Lasers

New diode and fiber advancements deliver higher reliability and smaller form factors, while providing the highest wall plug efficiencies in the world

OXFORD, Mass. – November 2, 2018 - IPG Photonics Corporation (NASDAQ: IPGP) the leader in high-power industrial fiber lasers and amplifiers, today announced the release of a new generation of high power lasers. These new lasers feature industry leading reliability with multi-year service free operation, the industry's smallest weight and size, and the industry's highest wall plug efficiencies. The new generation of lasers also incorporate three new innovations. These breakthroughs will further empower IPG Photonics' customers, providing increased flexibility and speed in their laser applications, while in many instances reducing costs and improving overall throughput. Visitors to FABTECH 2018, being held at the Georgia World Congress Center in Atlanta, will be the first to learn about these new game changing advancements at the IPG Booth (#C12868).

Introduction of new QCW mode to CW lasers: QCW capability provides peak power up to two times average power, allowing increases in piercing speed, improvements in pierce quality and piercing of thicker materials while maintaining the throughput benefits of CW lasers during cutting. The high peak power allows for reduced heat input in the QCW mode resulting in higher quality cuts of intricate parts with fine features and enhances drilling capabilities by allowing clean, controlled drilling in thicker materials. This unique capability is made possible by IPG's QCW diode designs, which have the ability to provide very high peak power for short duty cycles, with the real-time capability of switching to CW mode. Available exclusively from IPG in the latest releases of YLR and YLS lasers, the QCW mode will provide improved cutting and drilling quality and increased overall throughput, while saving material, time and operating costs.

"The roll out of QCW technology in our CW lasers is a good example of IPG solving problems experienced on the shop floor through advanced laser technology that decreases our customers' cost of ownership while increasing their overall productivity," said Felix Stukalin, IPG's Senior Vice President North American Operations.

New adjustable mode beam capability: IPG is launching Adjustable Mode Beam (AMB) capability on its flagship YLS family of lasers, allowing customers to change output beam mode on the fly and increase flexibility in cutting and welding applications. AMB enables programmable adjustment of the output beam mode to any combination of a small-spot high intensity bright core to a larger ring-shaped beam.

"AMB will allow IPG customers to process a wider range of material thicknesses and improve piercing and cutting quality, as well as optimize welding performance in certain material combinations," stated Trevor Ness, IPG's Senior Vice President World Wide Sales and Marketing. "With 20 kW total output power, AMB enables optimal processing of both thick and thin materials by the same laser and will have as standard IPG's industry leading wall plug efficiency of over 45%." He added, "AMB opens up a whole new world of flexibility for our customers, providing them with the precision needed for thin metal cutting, along with the quality and speed required for thicker metals. AMB also provides productivity solutions in certain welding configurations which will drive down operating costs."

Integrated high power scan head with LDD patented weld monitoring technology: This completely integrated and revolutionary solution meets the ever increasing quality monitoring requirements for industries such as automotive and medical. Completely integrated with IPG's recently released high power scanning heads and industry standard high-power lasers, in-situ Weld Depth Monitor produced in house by its Laser Depth Devices division provides the most comprehensive and direct measurement of crucial processing characteristics including weld depth, part fit-up, seam position, undercut, surface

porosity and focal distance. Integration of this technology with IPG's high power scan heads offers improved remote welding consistency and significant cost savings for applications such as e-mobility, seating, powertrain and body-in-white.

"These three new innovations support IPG's global mission of making fiber lasers the technology of choice for mass production. LDD, AMB and the new QCW mode are examples of how IPG Photonics is committed to decreasing our customers' cost of ownership while improving their overall productivity," added Trevor Ness.

For more information on these releases, along with other IPG Photonics lasers and laser systems, visit www.ipgphotonics.com.

About IPG Photonics Corporation

IPG Photonics Corporation is the leader in high-power fiber lasers and amplifiers used primarily in materials processing and other diverse applications. The company's mission is to make its fiber laser technology the tool of choice in mass production. IPG accomplishes this mission by delivering superior performance, reliability and usability at a lower total cost of ownership compared with other types of lasers and non-laser tools, allowing end users to increase productivity and decrease costs. A member of the S&P 500® Index, IPG is headquartered in Oxford, Massachusetts and has more than 25 facilities worldwide. For more information, visit www.ipgphotonics.com.

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