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News Release

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## **OFS RELEASES ALL-FIBER BEAM COMBINER, ENABLING MULTI-KILOWATT FIBER LASER METAL CUTTING, AND OTHER APPLICATIONS**

**AVON, CT, April 20, 2010** —OFS has used its extensive capabilities in specialty fiber design, manufacturing, and processing technologies to create an all-fiber beam combiner, a component which enables multi-kilowatt laser applications. OFS is now working closely with Hypertherm, a New Hampshire-based manufacturer of metal cutting systems, on a new product that incorporates the beam combiner technology and is expected to be available late this year.

OFS's business model brings the most advanced technologies to end customers quickly by identifying possible commercial applications for such technologies early in the design cycle. "It is often a challenge to find market acceptance for some of the most advanced technologies" said Tomoko Ohtsuki, Marketing Manager for OFS's commercial laser product line, "so we are especially pleased to work with the engineering experts at Hypertherm on advancing metal cutting technology as a real-world application for our beam combiner."

OFS's all-fiber beam component works to enable multi-kilowatt fiber lasers by combining the beams from up to 7 individual fiber lasers. Early demonstrations of the technology have reached over 1.5 kilowatts of power with a high-brightness, high-quality beam. OFS's design for the all-fiber beam combiner is unique, based on a combination of patent-pending specialty fiber design and glass processing. It is expected the beam combiner can be used at several kilowatts of output power.

"As with all of OFS's high-power combiners, reliable long-term operation was a major design driver. And high beam quality with a large input fiber count was the ultimate goal with this new device," said Bob Holland, Product Development Manager at OFS. "What's interesting," he continued, "is that we haven't yet seen the limits of our proprietary, all-glass

design approach. There is still room for development using ever larger input fiber counts for higher total output power, while retaining and improving beam quality.”

In the Hypertherm application, the level of power and precision reached with the all-fiber beam combiner enables development of high-reliability fiber laser cutting solutions. “This first application of the technology,” said Ms. Ohtsuki, “showcases exciting possibilities for what can be done with an all-fiber beam combiner and for what can happen when advanced technology is developed with a focused eye on the marketplace.”

This product can be customized to a wide range of fiber laser types and other applications using multi-kilowatt fiber lasers. OFS is a leader in the research and development of specialty fiber technologies, which are used to design and manufacture building blocks for fiber lasers and amplifiers. The company looks forward to working with other manufacturers who have new ideas about using or customizing OFS’s beam combiner for multi-kilowatt applications.

#### **About OFS, Specialty Photonics Division**

OFS, Specialty Photonics Division, is the industry leader in optical fiber design or modification for highly specialized or customized applications. It supplies advanced optical fibers, including specialty multimode, specialty single-mode, rare-earth doped, polarization-maintaining and other nonstandard fibers. It also manufactures specialty cables and connectors, and other specialty products, such as high-power laser components. For more information about the Specialty Photonics Division, please visit:

[www.SpecialtyPhotonics.com](http://www.SpecialtyPhotonics.com)

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#### **About OFS**

OFS is a world-leading designer, manufacturer and provider of optical fiber, optical fiber cable, connectivity, FTTx and specialty photonics solutions. Our marketing, sales,

manufacturing and research teams provide forward-looking, innovative products and solutions in areas including Telecommunications, Medicine, Industrial Automation, Sensing, Government, Aerospace and Defense applications. We provide reliable, cost effective optical solutions to enable our customers to meet the needs of today's and tomorrow's digital and energy consumers and businesses.

OFS' corporate lineage dates back to 1876 and includes technology powerhouses such as AT&T and Lucent Technologies. Today, OFS is owned by Furukawa Electric, a multi-billion dollar global leader in optical communications.

For more information, please visit [www.ofsoptics.com](http://www.ofsoptics.com).

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