

Manufacturer of Low-Loss Fiber Optic Winding Tubes for Petroleum and Petrochemical Industries



AI Overview

Heraeus Covantics and Supertek are leading providers of ultra-low-loss fiber optic tubes and precision winding systems suitable for petroleum and petrochemical applications. Heraeus Covantics – Ultra-Low-Loss Fiber Tubes Heraeus Covantics specializes in fluorine-doped (F-doped) silica tubes designed for ultra-low-loss (ULL) fiber production, which is critical for long-haul and subsea fiber optic applications in the petroleum and petrochemical sectors. Their tubes are made from high-purity synthetic quartz, free from trace elements and OH content, ensuring minimal optical loss. These tubes are manufactured using the OVD method and a contactless thermal forming process, providing high geometric precision and homogeneity. They are suitable for use as substrate tubes for core rod making, gap jacket tubes, and cladding tubes, supporting specialized fiber designs and stable manufacturing processes. Supertek – Precision Winding Technology Supertek provides high-precision winding and unwinding systems for delicate fiber optic materials, including ultra-thin optical fibers. Their machines feature tension-controlled winders and unwinders, ensuring gentle handling and low-twist placement, which is essential for maintaining fiber integrity and minimizing loss. Supertek's systems are modular, scalable, and energy-efficient, allowing integration into existing production lines for continuous quality control and automated inspection. These solutions are particularly useful for fiber Bragg gratings and specialty fibers used in industrial monitoring and pipeline sensing applications. Additional Technologies For applications requiring composite or thermoplastic tubes, companies like Alformet GmbH and Fraunhofer IPT offer laser-

Article Content

Products and services

WEINERT Industries offers everything related to topic Products and Services. Benefit from our know-how of German engineering expertise. Learn more now!

Specialty Optical Fiber for the Oil & Gas Industry

Specialty optical fibers are crucial in the oil and gas industry, offering reliable and cost-effective solutions for distributed sensing applications. With over 40 years of

Ultra Low Loss Fiber

Heraeus Covantics tubes deliver exceptional performance in the field of ultra-low loss fibers. From the purity of materials, flexibility in doping profiles, to high

Oil and Gas

By producing the optical fiber, steel tubing and other key components in house, AFL can serve customers from any location worldwide. Let AFL custom design and deliver fiber optic cable and

Application of fiber optics in oil and gas field development ...

Recent challenges of the petroleum industry underscore the need to optimize oil and gas production. With the global demand for petroleum resources constantly increasing with an increasing

Specialty Photonics and Custom Fiber Optic Solutions

OFS specialty optical fibers can be customized to meet your desired specifications with state-of-the-art coatings, buffers, and cabling materials resistant to abrasion, chemicals, radiation, biological

Stainless Steel Fiber Optic Tubes | AFL EMEA

As the inventor and owner of the technology for placing optical fibers into stainless steel tubes, AFL offers a range of tube sizes and fiber counts for a variety of applications.

Meeting the Challenges of Oil and Gas Production

Subsea fiber optic systems deliver optical performance at high pressures and temperatures. In the oil and gas industry, it meets exploration and recovery

Filament winding tubes by SAVER Spa

SAVER S.p.A. is the global leader of production of filament winding tubes of aramid, polyester and glass fibres for electrical and industrial applications. The main

Armored Stainless Steel Tubes | AFL EMEA

AFL's Armored Stainless Steel Fiber Optic cables are designed for sensing and control applications where ruggedness and flexibility are desired.

Fiber Optic Connector Technology for Oil and Gas | TE Connectivity

Fiber Optic Connector Technology Reliability Transfers To Oil and Gas Applications
Fiber optics (FO) technology is finding new uses in subsea applications. Fiber allows longer transmission distances

FIBER OPTIC SENSING IN THE OIL AND GAS INDUSTRY

Summary Over the past few decades, interest in and adoption of optical and fiber optic based sensing systems has increased for downhole applications in the petroleum industry. This

Fiber Optic Communication Solutions for the Oil and Gas Industry

Explore how fiber optics power secure, high-speed communications in oil and gas, improving safety, efficiency, and SCADA/IIoT integration across operations.

Mining and Petrochemical Tray-Rated, Loose Tube, Gel-Free Cable

Corning dielectric, tray-rated, mining, and petrochemical fiber optic cables are designed for indoor and outdoor use in mining and petrochemical backbones (aerial and duct) as well as horizontal

Fiber Connectivity Solutions for the Oil & Gas Industry

Trusted by Manufacturers & Industrial Automation Experts For over six decades, we provided robust fiber optic solutions to the oil & gas sector. From offshore rigs to

Premier Producer of Fiber in Metal Tubes • NBG Fiber Optics

High-quality fiber optic products designed to protect and empower critical infrastructure. We are NBG, a pioneer in fiber optic technology with 30 years of experience. Our products and solutions are

Top 10 Companies in the Special Optical Fiber for Petrochemical

Special optical fibers for petrochemical applications are advanced fiber optic cables engineered to withstand extreme industrial environments.

Fiber Optics Industry :: Supertek

Our tension-controlled winders and unwinders ensure low-twist placement, guaranteeing gentle handling of the delicate fiber optic material. These systems enable seamless integration into existing

Fiber Optic Sensing for Downhole Monitoring in Oil & Gas

Explore how fiber optic sensing is transforming downhole monitoring for safer, more efficient oil and gas operations.

Specialty Photonics and Custom Fiber Optic Solutions

Industrial Networking OFS designs and manufactures HCS® and other ruggedized communications-grade fiber optic cables and connectivity solutions for Industrial Networks. HCS optical fiber with its

A Review of Distributed Fiber-Optic Sensing in the Oil and Gas Industry

The reported hybrid sensing system was tested in an operational oil well. This work also discusses the challenges that might hinder the growth of the distributed fiber-optic sensing market in

Stainless-Steel Fiber Optic Tubes

Often referred to as FIST (Fiber in Steel Tube) or FIMT (Fiber in Metal Tube), AFL is the inventor and owner of placing optical fibers into stainless-steel tubes and offers a wide variety of tube sizes and

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.sphplantsales.co.za>

Email: info@sphplantsales.co.za

Phone: +27 64 827 3915

Address: Unit 9, Highveld Technopark, 43 Atlas Road, Johannesburg, 2196, South Africa

This document is for informational purposes only. Specifications subject to change without notice.

