

# Valdor Technology: A Much Better Mousetrap

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Every once in a while, industries are set on the ear by the arrival of a new technology that is so revolutionary, it changes the very rules of the game in which it plays. Such a scenario is emerging in a more or less unromantic and unpublicized market: Fibre Optic Connectors — and Valdor Technology International (TSX.V:VTI) is driving the revolution.

Unless you've been snoozing for the last ten years, you're probably aware that all of the broadband internet and phone communications infrastructure has been moving to fibre optics over copper steadily since the technology gained maturity at the onset of this decade.

An optical fiber is a glass or plastic fiber that carries light along its length. Fiber optics is the overlap of applied science and engineering concerned with the design and application of optical fibers. Optical fibers are widely used in fiber-optic communications, which permits transmission over longer distances and at higher data rates (a.k.a "bandwidth") than other forms of communications.

Fibers are used instead of metal wires because signals travel along them with less loss, and they are also immune to electromagnetic interference. Fibers are also used for illumination, and are wrapped in bundles so they can be used to carry images, thus allowing viewing in tight spaces. Specially designed fibers are used for a variety of other applications, including sensors and fiber lasers.

Within the vast network of fibre networks, the termination of fiber optic cable has always been considered the most difficult part of installing fiber optics. First you have to deal with hair thin strands of glass. Then you have to glue a connector on the end of the fiber and crimp it to the cable. Then, you polish the ends to get good performance. It's termination where copper wiring has always claimed a big advantage over fiber - although terminating Cat 6 is not easy either.

Numerous methods for adhesive/polish connectors have been developed in attempts to simplify fiber optic termination and speed up the process. Epoxies that cured overnight were replaced by epoxies that cure in 5 minutes at higher temperatures in an oven. Quick-curing adhesives, called "anaerobics," can reduce adhesive curing time to less than 5 minutes. 3M has the "Hot Melt" connector that you heat up to melt the adhesive, insert the fiber and let it cool to set.

Companies have spent many millions developing non-adhesive connectors. Some crimp on the fiber but still require polishing. Others crimp and cleave the fiber (cleaving is the process of breaking the fiber under controlled conditions to produce an end finish in one step.) Finally, many companies have developed an option worth considering: pre-polished connectors where you splice the fiber into the connector for termination.

Valdor has successfully developed and deployed a proprietary system for connecting, splicing and polishing fibre that is the most convenient and fastest method yet developed. Combining complete patent protection coverage with its offshore China manufacturing facility, Valdor is uniquely positioned to accommodate the most stringent, high volume requirements.

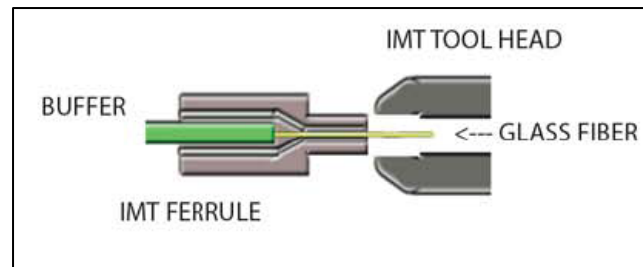
An optical fiber connector terminates the end of an optical fiber and enables quicker connection and disconnection than splicing. The connectors mechanically couple and align the cores of fibers so that light can pass. Most optical fiber connectors are spring-loaded: The fiber end-faces of the



two connectors are pressed together, resulting in a direct glass to glass or plastic to plastic, respectively, contact, avoiding any glass to air or plastic to air interfaces, which would result in higher connector losses.

A variety of optical fiber connectors are available. The main differences among types of connectors are dimensions and methods of mechanical coupling. Generally, organizations will standardize on one kind of connector, depending on what equipment they commonly use, or per type of fiber (one for multimode, one for singlemode). In datacom and telecom applications nowadays small form factor connectors and multi-fiber connectors are replacing the traditional connectors, mainly to pack more connectors on the overcrowded faceplate, and thus reducing the footprint of the systems.

Valdor has been negotiating with some very big clients, and is now poised to replace huge swaths of traditional connector business with its own technologies. One of its most advanced negotiations is with a major oil field services company for offshore drilling platform uses.



What does oilfield services have to do with Fiber Optics, you might wonder?

Well once again, thanks to the superiority of the Valdor system in high temperature and pressure environments, Valdor is poised to replace the connection technology currently in use in high pressure and temperature wells to connect sensory devices at the end of subterranean drills with their operations consoles on the surface.

During the past 24-months, Valdor has worked closely with this client in engineering and manufacturing a high temperature, all-metal, harsh environment fiber optic connector to be used to monitor down hole drilling conditions on off-shore oil and gas drill platforms. The client has now confirmed that Valdor's mechanical installation hand tool kit and special designed connectors meet all their requirements. Valdor anticipates that all initial testing of the connectors will be concluded in early 2009.

In the current quarter, Valdor received a purchase order from the client to finalize the standardization of Valdor's Impact Mount™ FC connectors for all applications on off-shore drill platforms. This will allow the client to employ a single Field Installable Kit for both surface use and for down-hole drill applications on off-shore drill platforms. The Valdor connectors will be unique in this qualification. The FC connectors have previously been qualified for use in harsh environments.

Valdor's unique, patented, all mechanical, field installable, Impact Mount™ products are especially suited for oil and gas exploration activities. They provide easy installation in harsh environments, ease of repair by technicians on drill platforms, and protection from heat, vibration, and caustic conditions. These features greatly reduce costly drill rig downtime.

The challenge for Valdor is attracting sufficient investment for it to execute on its business plan sufficiently to obtain critical mass and market share. In today's challenging environment, it's not going to be easy. However, the relative obscurity of Valdor and its technology might just be the advantage that risk tolerant investors can capitalize on.

For complete information on Valdor, visit its brand new website at <http://www.valdortech.com>.