## Diamond Fibre to the Antenna Solutions

Operators of wire systems are faced with constant challenges with regard to the availability of the range and capacities demanded by customers, especially with regard to data. The installation of 4G and 5G solutions often takes place in narrow towers or on roofs. Compared to conventional cable systems, radio technology systems with fibre optic connections can reduce both capital and operating expenses due to reduced installation times and the use of less and smaller components installed in these dense environments. In order to meet the growing demand for mobile services, antennas will be put into the ground in the future.







HE-2000™





The new Diamond Multipurpose Insert is the core of the existing HE-2000™, MIL-38999 DM4 and MIL-83526 DM4 Diamond connectors. The DM4 Insert incorporates four optical or electrical termini ideal for hybrid electrical / optical applications. The optical termini are assembled with Diamond's proprietary state-of-the-art Active Core Alignment (ACA) process allowing for a combination of unparalleled fiber core concentricity and superior optical performance.



## Installation

The mobile radio equipment is installed in the existing telecommunications infrastructure in the street pits so that there is a minimal need for installation. The only cabling required is copper and fibre optic cable.

Only the antennas that require a new pit and manhole covers are made from specific materials with unique characteristics which allows optimal radiation emission.

A major challenge for the copper and optical fibre connectors in this pit environment is the exposure to water and temperature fluctuations, therefore a solution that provides a waterproof environment is required.

## HE-2000™

Diamond has developed the new robust and reliable push-pull connector HE-2000<sup>TM</sup> IP67 to enable fast and reliable connections with excellent optical and mechanical properties, even in demanding applications in harsh environments where quick and simple installation and replacement is required. In addition, Diamond developed an IP68 rated protective bell for this application for protection against complete water submersion.





## **Customer Feedback**

"Diamond Titanium-Ceramic ferrule are uniquely designed and flexible enough to allow the best optical performance of MCF based connectors"

