

## A hero for hard rock

GDI looks at HERO 11, the latest addition to Fordia's diamond core drill bits

In March, Fordia completed its range of HERO core bits with the release of HERO 11 on the Canadian market.

Designed to offer an exceptional penetration/lifespan ratio, the HERO series includes the HERO 3 matrix for use in soft and abrasive ground, and HERO 7 for intermediate ground conditions.

HERO 11 is specifically for use in very hard to extremely hard ground that is rated between 6.5 and 7.5 on the Mohs scale.

### Design

In order to deal with these types of ground, Fordia has equipped HERO 11 with a soft matrix, which is easier to sharpen, so it offers more bite than lower level matrices. The bit is built from carefully

selected materials. The concentration of diamonds is adjusted to suit the hardness of the ground for optimal performance in extremely hard conditions, such as basalt, felsic or volcanic rock.

Julie Massé of Fordia explains: "HERO 11 core bits are manufactured one at a time, with care and precision. The core bits comprise the highest-grade diamonds, which are coated with titanium in order to preserve their cutting ability throughout the furnacing process."

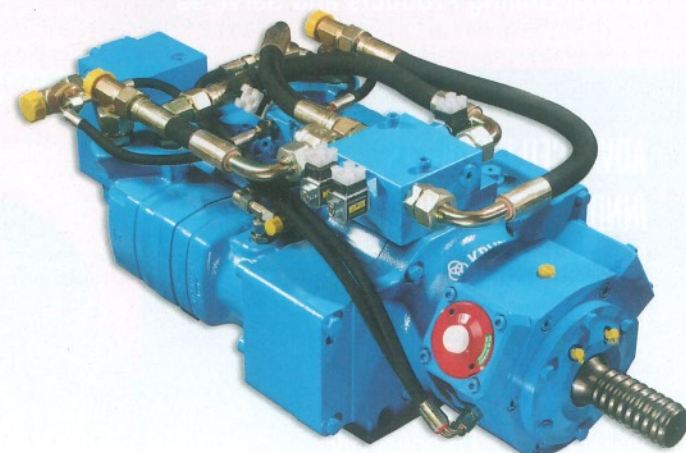
"Our unitary furnacing process ensures improved uniformity and distribution of diamonds, and maximises their properties to provide a more constant rate of penetration."

HERO 11 offers a diamond impregnation height of 13mm and can also be ordered in the Vulcan 16mm configuration for deep-hole drilling. It is available in all standard diameter sizes, including BWL, NWL, HWL and PWL.

The bits employ a Turbo Pie-shape face

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the characteristics of Australian ground," says Ms Massé.

Since its launch, the new core bit has been used successfully in other regions of the world as well. Fordia in Vancouver, Canada, has filled a number of orders for deliveries to Peru and the US.

During a recent drilling campaign conducted in Nevada, one of Fordia's clients indicated that they were particularly impressed by HERO 11.

The client was using two types of diamond tools in an HWL format on primarily volcanic rock. They systematically obtained meterages of 9.1m with one and 15.2m with the other. Using HERO 11 in the same ground, they were able to obtain an average depth of 33.5m.

"Another success story came from one of our American clients using HERO 11 in Western Nevada," adds Ms Massé. "One of the holes they were drilling was 256m deep and they decided to put HERO 11 to the test. They were astonished to find that the tool easily allowed them to extend the hole to a depth of 366m."

Katherine Rogers, manager of Fordia USA, continues: "When the team pulled out the drill string, the bit was barely worn and still looked brand new. The bore was conducted in quartz and granite with a hardness rating of seven on the Mohs scale. The resilience offered by our products is proof of why these clients are particularly enthusiastic about using HERO series matrices." ♥

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design. The water ways are specifically configured to create a reduced contact area, and allows for greater ejection of fluids and cuttings.

Fordia also offers other customised bit sizes, which can be manufactured on request to meet specific customer needs. The HERO 11 can be ordered with a specified impregnation height, water way configuration, meshing and diameter on request.

### The results

HERO 11 is now available worldwide and is aimed at exploration drilling in regions such as South America and Australia, which have very tough ground conditions.

Tests conducted on Australian ground have proven very successful.

"Our clients have stated that the HERO 11 met their requirements and delivered excellent results. This is the first matrix in the HERO series to be designed for

# HERO™

FORDIA

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