

DRILL BIT PIONEERS

Following a recent expansion into North America, engineering company Hard Metals will be exhibiting its full range of polycrystalline diamond compact (PDC) HDD tools at the ISTT's International No-Dig & NASTT's No-Dig Show in Washington, D.C.

Hard Metals was established in Australia in 1982, with a vision to introduce tungsten carbide to the agricultural industry for protection of a new range of minimum tillage points developed for sustainable farming methods which were just starting to come into vogue at the time. Following successful trials, the concept of tungsten protected tillage tools gained traction in agriculture, leading to it setting up a manufacturing facility for brazing tungsten in the early 90s.

A chance meeting, in 2006, with a civil engineering company who specialised in Trenchless Technology, led to the development of its first HDD tool, the Wombat Hole Opener. Hard Metals Sole

Director Stephen Ainge says the development of the tool is without doubt the most memorable project of his career, because it was based on a concept many considered impossible.

"The tool's application was very successful, but its design was also novel enough to justify patents in Australia and overseas, including the US," Mr Ainge says.

"With market demand for bigger and better tooling, Hard Metals has developed manufacturing facilities that have the capabilities to manufacture hole openers up to 1 m in diameter.

"The current iteration is possibly the best performing PDC hole opener anywhere in the world. However, we are continuing to improve

and develop it and have set up a special engineering department for this purpose."

Hard Metals started exhibiting overseas in 2010, delivering a few of its products to international customers over the ensuing years. It wasn't until 2015 that it expended internationally by establishing Hard Metals in Calgary, Canada, to service the Alberta pipeline industry.

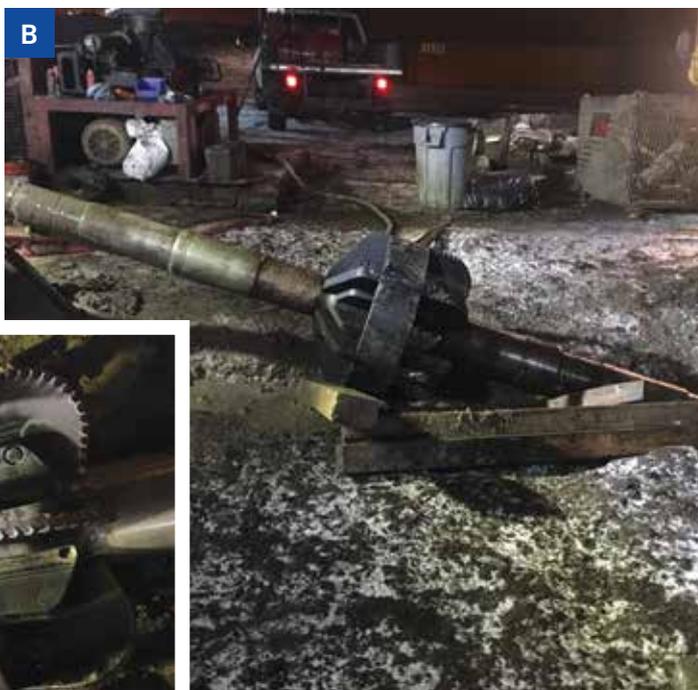
"While it is still early days, we have enjoyed good success in Canada and eventually we expect similar demand in the US," Mr Ainge says.

He says HDD is developing at a fast rate, with smaller machines drilling larger holes, more reliably, over distances and at depths that were previously considered impossible.

"Three basic factors have made this possible: better tools, mud systems and guidance techniques. In the future, HDD will become the primary method for new installations," says Mr Ainge.

At the ISTT International No-Dig & NASTT No-Dig Show in Washington D.C., Hard Metals will be exhibiting its latest PDC tooling range, including the latest iteration of the original tool, the Wombat Hole Opener.

"Any HDD operator would be interested in this range because we have extended our designs to cover most scenarios and most machines, from small to large sized rigs. We will also release a new cutter to cover off on ground conditions not normally suited to PDC – this one is a show surprise, so stay tuned!"



A-B: Hard Metals' first HDD tool, the Wombat Hole Opener, in action.

WOMBAT HOLE OPENER

Designed and manufactured by Hard Metals, the Wombat Hole Opener is suited to horizontal, vertical and inclined applications, and marks a significant step forward in the art of reaming. Featuring inbuilt stabilisation, the flexibility of simple replacement of cutter type and diameter in the field, combined with excellent down the hole performance, makes it a worthy addition to any drillers' tool box.

For more information visit www.hardmetals.com