BROONS FURTHER EXPANDS RESEARCH ON DYNAMIC COMPACTION

It started with a chance meeting and led to working on some of the largest civil engineering projects on earth.

When the late Graham Bowes from Broons was approached in the early 1980’s to expand the usage of the Square Impact Roller outside of South Africa it was quickly cast aside as a weird idea but history has since proven it to be a very popular “weird idea”.

"My father had big aspirations when he latched onto the concept of Rolling Dynamic Compaction having been involved in the introduction of vibrating rollers to Australia in the 1960’s and 1970’s with Coates," said Broons Director, Stuart Bowes. "Against better judgement, he felt this was going to the next big thing in soil compaction but it very nearly sunk our firm in the early years soaking up vast amounts of cash as he endlessly pushed ahead, firmly believing in the technology."

Though no longer around to see the fruits of those tough early years, Graham Bowes ensured that every civil engineer and geotechnical consultant knew about the machine, undertaking trials right around the country and producing significant supporting data in the process which laid the ground work for the years ahead.

Today, Rolling Dynamic Compaction using Broons’ Square Impact Roller is readily accepted on many deep fill projects and the research gathering continues under the guidance of son Stuart.

"We have a very successful research collaboration agreement with the University of Adelaide under the leadership of Professor Mark Jaksa and this has been growing over many years," said Stuart while attending the ISSMGE conference in Paris recently where a paper was presented by Prof. Jaksa on the research into numerical modelling of the effects of the Broons Square Impact Roller.

"In 2014 we're building our own test rig at our Adelaide head office to further advance the understanding of the effects on soils at depth during Rolling Dynamic Compaction. It's something we've been wanting to do for some time and we've now got the resources to do it," said Stuart in Paris.

"What we are seeking to provide our clients is predictive forecasting on the effects of rolling dynamic compaction on their sites at the
estimating or tendering stage. We know a lot about the effects once we have done the job but the real benefit in this technology would be predicting the result and to be better able to cost the project for the client. There is already a wealth of post compaction testing methods, but few means to use predictive modelling beforehand."

Broons has been a world leader in Rolling Dynamic Compaction since the 1980’s delivering machine to clients in all corners of the globe for use in civil, mining and agricultural applications.