

Brokk at Banimboola Power Station

Southern Hydro Pty Ltd of Australia is currently building a new hydro plant at Banimboola, Victoria, to be completed late in 2005. The Banimboola station, which will have a capacity of 12.2 MW, is built adjacent to the Dartmouth dam in the Mitta Mitta river.

To install the pipes allowing water to flow through and run the turbines of the new station involved the tunnelling of three holes of 9 metres length into the dam. Two of the holes had a diameter of 3.5 m and one was 2.5 m in diameter.



A 30 ton excavator was used to begin with but soon enough there was not room for a machine of that size. A tunnel boring machine would have been too expensive considering the short length of the tunnels. The contractor's choice was to finish the excavation of the tunnels using a Brokk 180 compact, remote-controlled demolition machine, built to operate in confined spaces and supplied by Brokk's distributor Husqvarna Construction Products Australia Pty Ltd.



The Brokk, equipped with a powerful hydraulic breaker, did the last 4 metres of the two bigger tunnels and the last 5 metres of the small tunnel and was able to break between 2 and 7 cubic metres of concrete per day. The concrete was 60 mpa with 90 mm aggregate.



Finally, the last three metres of each of the tunnels were squared up to fit the size of the gates.

The manoeuvrability of the Brokk machine also in tight spaces, the flexibility of the three-part arm, and the precision that the remote control enables, the operator being able to stand where he can get the best possible overview; all these inherent features of the Brokk made it the perfect tunnelling machine at Banimboola.

Brokk 180 technical data

Min. height:	1.4 m
Min. width:	0.8 m
Weight with breaker:	2100 kg
Reach:	4.7 m
Electric motor:	18 kW

August 2005