



## KAIKOURA RAIL & ROAD REBUILD

The Kaikoura earthquake caused substantial damage to the Christchurch to Picton rail line and tunnels, which are over 100 years old. The tunnels suffered substantial damage from rock falls, cracking and general weakening. Some sections had vertical and transverse movement in excess of 500mm, from transverse faults running through the tunnels.

With a focus on avoiding any further compromise to the existing and structural integrity of the tunnels due to vibration, this led to the initial selection of the baby AQ1s (120kg) milling head mounted on an 8 tonne excavator to mill back the concrete tunnel linings and the raw blue greywacke walls.

The benefits of utilizing these small robust Antraquip Milling Heads is that there is little or no micro cracking of the area outside the excavation line (Cracking from hammers and other excavation methods has been shown to reach up to 2m) and this made them an ideal option for this particular remediation challenge

Two of the range's smallest units – an AQ-1s and AQ-1 – were utilised on the project over a period of 2 years.

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