

Rock Splitting

Over the years Combined has been engaged to remove rock and concrete from areas with difficult access or severe noise and vibration restrictions.

This is where Darda rock splitters come into their own. Designed to produce 420 tonne of splitting pressure, yet weighing just 22kg and 1.2m long, the splitters have the power and versatility to get into these difficult spots.

Combined has used splitters to break out many cubic metres of rock to provide extra rooms under the existing floors of houses in Balmain, Beecroft, Annadale, Rocky Point and numerous other locations around Sydney without disturbing neighbouring people or properties.



The splitters come to full hydraulic pressure in 40 seconds and are driven by a single phase motor which can be up to 20m away, making no more noise than a boiling kettle.

A splitter works on a wedge/counter-wedge principle, which allows us to accurately guide where the split will be made, enabling us to break out rock or concrete right beside footings and walls. There is no dust or noisy vibration from the splitting process.

Splitting can be used where there are sensitive structures embedded in the concrete or where the rock or concrete must be removed in a controlled manner.

Rock splitting was used to remove 200 tonne of hard rock over the main sewerage line between the Eastern Suburbs and the City of Sydney during the construction of the Eastern Distributor.

Another recent commercial application in Sydney was the removal of 10 tonne of concrete and rock above the main stair into the Cross City Tunnel, while maintaining access to the stairs for construction employees.

We also employed rock splitting to break out a pit in the Bondi Sewerage Treatment Plant at North Head and remove 9 cubic metres of rock and concrete, 20m below ground. Later the concrete was tested and found to have a strength of 80MPa. All work was carried out while maintaining full operation of the plant. Pneumatic equipment could not be used because the noise and dust produced would be detrimental to the health and well-being of the operations staff at the plant.

The splitter also comes into its own when up against very hard rock. We recently removed 4 cubic metres of rock north of Newcastle. The client had tried for 3 weeks with a 20 tonne excavator to break out the rock, locally known as 'harbour bay rock', with no success. Later this rock was tested and found to have a strength of 140MPa. We were able to split out all the rock in three days with one operator and one assistant.



Recently we removed rock under a house at Beecroft where the client had previously tried conventional methods but was receiving constant complaints from neighbours about dust, vibration and being woken at 7am by the noise. We began work on the second stage and on the first morning the client rang to see where operators were, only to be told we had been working on site for 1 hour.

Rock Splitting : the quiet achiever !