

MEDIA RELEASE

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The first of Australia's largest Tunnel Boring Machines arrives in Brisbane for Airport Link

The first of two Tunnel Boring Machines (TBMs), the largest ever to operate in Australia, has arrived in Brisbane for use on the Airport Link Project.

The 3,600 tonne TBM, delivered to Australia in three shipments of container and break bulk cargo, has now been transferred to the Project's Kalinga Park construction site in Toombul where the machine will be prepared for assembly prior to tunnelling operations in the first half of 2010.

German manufacturer Herrenknecht, a world leader in tunnelling technology, spent nearly twelve months building the two Tunnel Boring Machines that will excavate the Airport Link road tunnel.

Project Director Gordon Ralph said the Tunnel Boring Machine, valued at \$45 Million, was an 'Earth Pressure Balance' model specially designed for Airport Link tunnelling.

"The TBM will encounter soft ground conditions with a mix of rock, sand and gravel when it first commences tunnelling from Kalinga Park in Clayfield, and these are the ground conditions in which the machine will be most effective," said Mr Ralph.

"The first 200 metres of excavation will be the most critical to the project's tunnelling program, when the TBM bores through soft ground in Clayfield as it travels west to Chalk Street in Lutwyche.

"The TBM will continuously install a full circle of concrete segments during the excavation process to provide lining and strong support for the tunnel.

"The TBMs are highly versatile – they are extremely safe to use when excavating softer ground but also have the ability to cut through rock that is 6-8 times harder than concrete", he said.

Airport Link comprises twin 5.1 kilometre road tunnels and two Tunnel Boring Machines will be used to excavate the tunnels between Clayfield and Lutwyche.

Works to assemble the first machine will commence in January prior to tunnelling operations in May 2010.

The second identical TBM will arrive in March 2010 to commence tunnelling two months after the first machine.

On completion in 2012, Airport Link will be the longest road tunnel in Australia.

Gordon Ralph said work at the Kalinga Park site has ramped up for construction of a giant Tunnel Boring Machine launch box measuring 106 metres long and 20 metres deep, which will enable the machines to be lowered into the ground for assembly.

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“The TBM’s are 195 metres in length when fully assembled, longer than Suncorp Stadium’s playing field, so they will be lowered into the ground in parts by two large gantry cranes positioned over the launch box,” said Mr Ralph.

Mr Ralph said a total of 0.5 million cubic metres of spoil will be removed during TBM tunnelling operations and transferred by conveyor to a handling station located two kilometres from the Kalinga Park site.

“Use of the conveyor system allows us to remove a significant number of truck movements from the road network, which is a great outcome to minimise disruption for the surrounding community,” he said.

Airport Link is being constructed jointly with the Northern Busway (Windsor to Kedron) and together the projects require a total of 15 kilometres of tunnelling, including road and busway tunnels and connecting ramps.

Four kilometres of the tunnels will be excavated using two Tunnel Boring Machines, nine kilometres of tunnel by 15 roadheader machines, and the remaining two kilometres will be excavated using cut and cover construction techniques.

On completion of the project by mid 2012, constructor Thiess John Holland will reinstate the work sites at Toombul and return Kalinga Park to the local community.

As part of the project, there will be upgrades to Kalinga Park with new pathway connections, BBQ facilities and a children’s playground, along with enhancements to the Schulz Canal waterway.

On completion in mid 2012, Airport Link will be the first major motorway connecting Brisbane city with the airport and northern suburbs, avoiding up to 18 sets of traffic lights.

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