

The “Airport Link Tunnel Brisbane” with 17 installed Road Headers and 2 EPB-Shield TBMs is currently Australia’s biggest infrastructure project. The precise controlled excavation done by these machines helps to reduce both time and costs.



## Airport Link Brisbane/ Australia Guided by VMT End of “Blind Flight”

The most popular means of transport Australia belongs to one of the biggest boom regions of the world. Although sparsely populated there are many activities in traffic construction. Due to the long distances in this large continent with urban centres concentrated on the coast, the aeroplane is the most popular means of transport. Therefore good traffic connections both to and from

the airport are very important. In August 2008, after a relatively short planning period, the official starting shot for the mega “Brisbane Airport Link” -project was given. (Page 2)



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# The Airport as the most popular means of transport

This tunnel-project, in total 2 x 6.5 km long, will connect Brisbane’s centre to the access-highways to the airport and reduce the travelling time dramatically as of the middle of 2012.

A tunnelling-project of superlatives  
 This is a tunnelling-project of superlatives: the building costs are projected to 4.8 Billion AUD, 17 road-headers and two TBMs with EPB-shields with a diameter of 12.45 m are in action simultaneously and features ambitious time planning and cost saving ideas. For the consortium “Thiess-John Hol-

land” it was clear from the beginning that all road-headers shall be equipped with the VMT guiding system “SLS Road Header” as they had previous experience with this system at a smaller project. “The SLS Road Header Guidance System terminates the ‘blind flight’ which was formerly common practice at such tunnelling”, said Manfred Messing, General Manager of VMT GmbH, based in Bruchsal, Germany. Messing explains: “The machine driver can see on his computer display the exact position of the cutting head in relation to the required profile of the excavation. So the scheduled profiles can be exca-

Nearly routine are the guidance systems for the two huge Herrenknecht EPB-shields, each with a diameter of 12.45 m. It is in this area that VMT has gathered experiences since 1994 on several hundred projects world-wide.

vated precisely without, any more over or under-profiles.” It is clear: the guidance systems of the 17 road headers of the AirportLink Brisbane represent the lion’s share of VMT participation of this project. But the positioning systems on the 4 bolters at site, which cater for the precise alignment of the bolting units, are of technical interest as well. “With our SLS-Bolter system the positioning of roof bolting is much quicker and can be recorded additionally“, explains Höfer. In principle the determination of position of the bolting unit and the calculation of the corrections is nearly identical to the SLS-Road Header system.



<i>Brisbane Airport / Australia</i>		Info
<i>Diameter</i>	12.45 m	
<i>Lengths</i>	2 x 6.5 km main line tunnels	
<i>Type TBM</i>	2 x EPB Shield , 17 x Roadheader, 4 x Rockbolter	
<i>Navigation Systems</i>	17xSLS-Roadheader 4 SLS-Rockbolter, 2 x SLS-TBM	
<i>Additional Systems</i>	Ring Management Program RMP, Internetviewer	
<i>Service</i>	TBM measuring, start-up at site, secondment of personnel	