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CASE STUDY
QDM-350 COREDRILL MOTOR

OVERVIEW

The Company:	Lee Plant
Project:	M65 Central Reservation Barriers
Location:	Blackburn, Lancashire
Employees:	20+
Industry:	Road and Highways Infra structure
Customers for:	4 years

Diamond Coredrill Machinery Project

Lee Plant are a leading Road and Highways Infrastructure company that specialise in Motorway & Highway Maintenance.

They work with most of the major infrastructure companies in the UK and have completed projects on many of the major motorway and road projects across the UK. Lee Plant have a team of experienced, well trained operators.

THE CHALLENGE

Lee Plant were commissioned by The Highways Agency to reinstall the central reservation safety fences in the middle of the M65 near Blackburn and Burnley as part of a multi-million pound improvement project.

Central reservations on the UK motorway network are a familiar sight to drivers. They are designed to absorb the impact of a 1.5 tonne vehicle travelling at a speed of 70mph hitting the fence at an angle of 20° and with the purpose of deflecting the vehicle back on to the carriageway in the case of an impact.

Motorists will also have noted that, at places where there are gaps in the fence to make provision for emergency vehicles to cross at the central reservation, the longitudinal members are angled downwards and anchored to the ground.

The planned programme of replacement of these barriers and entry points was conducted based on full lane closures and the project demanded that the work was subject to strict deadlines and health and safety constraints. Clearly the drilling work undertaken had to be of a very high standard, with safety, noise, vibration and dust all being factored in line with the prevailing road traffic and surroundings.

Hundreds of holes were required (350mm Ø, 650mm depth). Due to the tight deadlines, reliability of the equipment used was also a consideration in avoiding downtime, especially considering that lane closure delays (including lost journey times and resulting accidents) was estimated to be around £2M.

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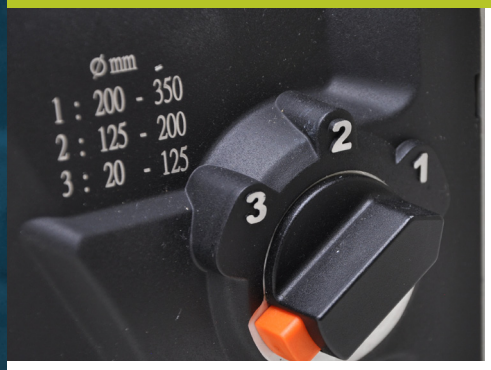
THE SOLUTION



As the M65 Project was such a large scale project with hundreds of large holes required in the road surface (350mm Ø, 650mm depth), Lee Plant used the Diaquip QDM-350 drill motors. Diaquip worked with Lee Plant to find the very best coredrill / segment / rig combination to get the best out of the QDM- 350's power and speed, whilst maximising the life of the coredrill.

The service from Diaquip meant that they experienced no downtime from the DQ Machinery. Each QDM-350 is backed by Diaquip's Max Uptime™ Service, with a 2 years warranty and a lifetime ownership guarantee for next working day replacement loan drill.

THE RESULT

The project was completed on time and on budget. The QDM-350's power and performance meant that time spent on changing coredrills was dramatically reduced, averaging 15 holes per coredrill. The feedback from Lee Plant was that the QDM-350 was approximately 20-25% faster at drilling each hole versus another market leading motor (using the same Diaquip Z1 coredrill and rig setup).

Diamond core drilling is a high-production, high-speed method of drilling in asphalt, concrete, and stone structures. It is safe, fast, reliable and does not cause impact or vibration damage to the immediate surrounding structure.

"All of the feedback from our drilling operators was that the Diaquip QDM-350 was the best all-round drill motor that they had used. It worked really well on the road surface and on concrete. Very reliable, very fast and helps to preserve the life of the coredrills. We were also delighted with the service and speed of dispatch for consumables."

Mark Lee – Lee Plant