

Tunnel Check Survey

With precision on target

Know-how

We offer individual and complete solutions right from conception to execution for all surveying underground tasks. Our experts use high-tech equipment in tunnelling and mining for all kind of underground measurement works.

One specific emphasis is high precision azimuth measurement using the GYROMAT 2000/3000 – a fully automatic gyroscope system for the determination of the north direction with unsurpassed accuracy world-wide. Precise knowledge of north direction reference is the most important pre-condition for accurate tunnel cut-through also with strong inclination of the tunnel axis. DMT have specific know-how and experience in the evaluation of position and height in long tunnels. The decades of experience from tunnel and mining industry projects guarantee highest precision – by compensation of refraction and other disturbing influences.

Service

We offer strategies for the planning of survey work and tunnel survey grids, choice of the survey methods and simulation for intersection forecasts as well as the complete carrying out of the survey including evaluation and data analysis. Our conceptions are developed right from the planning phase considering technical and economical aspects to give the best possible advice. The result is an cost-effective survey and a high-precision tunnel intersection.



Orientation measurement with GYROMAT 3000



Static GPS measurement

International Tunnel Projects (excerpt)		
Client	Tunnel	Description
Trans Manche Link (TML)	Channel tunnel Dover – Calais, (FR/BG)	railway tunnel, 3 x 50 km
Impregilio / Healy Joint Venture	Westside CSO Tunnel, Portland / Oregon (USA)	sewage tunnel, 6 km
MT Group	Great Belt Link (DK)	railway tunnel, 2 x 8 km
Lesotho Highlands Project Contractors	Lesotho Highlands Water Project, Lesotho (ZA)	pressure water tunnel, 84 km
Kombinatie Middelpmaat Westerschelde, KMW	Westerschelde Tunnel, Terneuzen (NL)	motorway tunnel, 2 x 6600m
TUBECON	Sophiaspoor Tunnel, Papendrecht (NL)	railway tunnel, 2 x 4400
Bilfinger Berger AG	Paghuashan Tunnel THSR, Fen Yuan (TW)	railway tunnel, 8800 m
Hochtief AG	Thames Tunnel, Swanscombe (GB)	railway tunnel, 2 x 2600 m
IIC – Ingenieria de Instrumentacion y Control S.A.	Guadarrama Tunnel, Madrid (ES)	railway tunnel, 2 x 28 km
Denys B.V.	Collector Brussels - Nord, Brussels (BE)	sewage tunnel, pipe drive 8 km
Thiess – Hochtief J.V.	Parramatta Rail Link, Sydney (AU)	high speed railway tunnel, 2 x 13 km
VMT GmbH	Vodokanal, St. Petersburg (RU)	sewage canal, pipe drive DN2000, 900m
SOAM Consultant Co. Ltd.	Young-Dong Railroad, Taebak City (KR)	railway tunnel, 2 x 16 km
Swissphoto AG	Alptransit Gotthard Base Tunnel (CH)	railway tunnel, 2 x 57 km
ARGE Fernbahntunnel	Fernbahn Tunnel, Berlin (D)	railway tunnel, 4 x 1,3 km
Baubehörde Hamburg	4. Röhre Elbtunnel, Hamburg (D)	motorway tunnel, 2,5 km
IIC – Ingenieria de Instrumentacion y Control S.A.	Tuneles de Pajares, Leon (ES)	railway tunnel, 2 x 25 km
Impregilio Iceland	Karahnjukar Headracetunnel (IS)	pressure water tunnel, 73 km tunnel system
Pöyry Environment OY	Vuosaari Railway Tunnel (FI)	railway tunnel, 13,5 km
Horizon Survey Instruments Services Pte. Ltd.	Transmission Cable Tunnel (SG)	cable tunnel, 3 km
Gascogne Genie Civil	Gautrain Project (ZA)	railway tunnel, 15 km
ATB Tunnel Brennero	Brenner Basis Tunnel (IT)	exploration tunnel, 12 km
SELI Tunnel	Gilgel Gibe II (ET)	water tunnel, 25 km

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