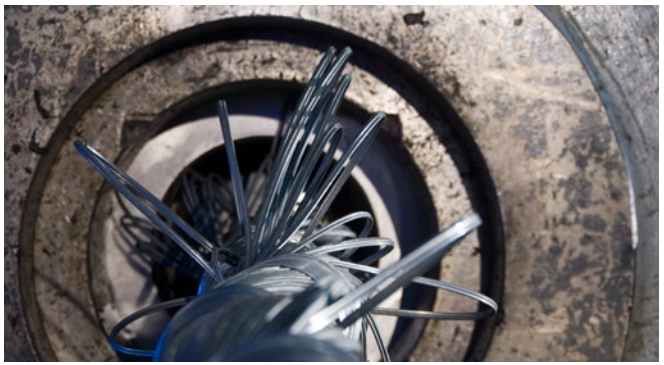

DMT Rope Testing

Our services for all cable/rope testing requirements comprise

- MRT for new cables/ropes during or after manufacturing
- MRT for cables/ropes in the field
- UT at end anchorages in the field
- MT & PT on sockets and steel constructions
- VT in the field
- Single wire testing
- Damage analyses
- Mechanical and technological determination of properties in our Rope Testing Centre:
  - Determination of tensile strength up to 20MN
  - Determination of rope moduli of elasticity
  - Torque analysis
  - Fatigue test
  - Creep test

Legend:

MRT = Magnetic Rope Testing
UT = Ultrasonic Testing
MT = Magnetic-particle Testing
PT = Penetrant Testing
VT = Visual Testing

We are certified:

✓ ISO 9001
✓ ISO 14001

✓ SCC^{P}: 2011

DMT Rope Testing Centre

DMT GmbH & Co. KG, Laboratory for Non-Destructive and Destructive Testing -Rope Testing Centre-, Bochum, Germany:

Laboratory for manual non-destructive testing (UT, MT, PT, VT, MRT) and mechanical testing of metallic and non-metallic materials.

DMT GmbH & Co. KG
Plant & Product Safety

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aps@dmt-group.com
dmt-group.com

DIN EN ISO 9001
DIN EN ISO 14001
DIN ISO 45001

Bridge Cable Inspection

More than 100 years of experience

DMT Rope Testing Centre
dmt-group.com

Engineering Performance

TÜVNORDGROUP

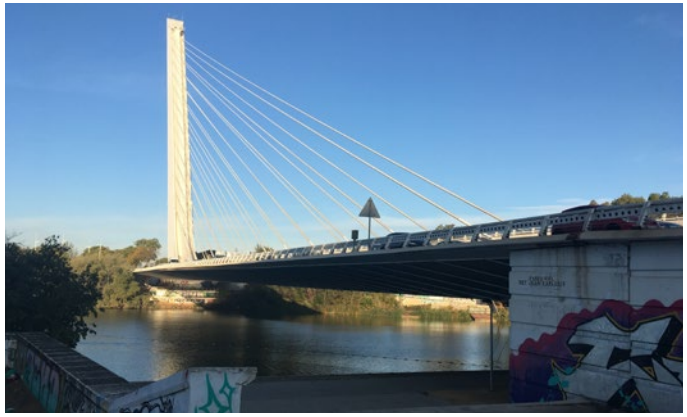
Magnetic Rope Test

Modern bridge designs require entirely new test instrumentation.

It was in the 1930s that DMT developed the first electromagnetic testing equipment for steel wire ropes and cables. In this way, and for the first time, the cablesused in guyed structures like bridges could be examined in the field.

Meanwhile, we have a broad background in non-destructive testing and decades of experience in interpreting the corresponding test results.

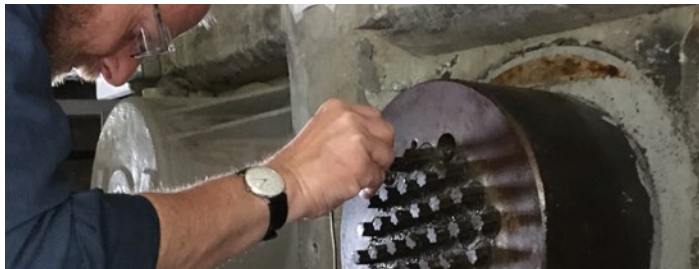
Thanks to the latest in-house developments, we can now test steel wire bridge cables exceeding 250 mm in diameter.



Ultrasonic Inspection

Wire cracks and breaks caused by dynamical loads often occur in the most critical areas of bridge cables - the end connections - after being in service often for decades. UT can be executed at different hanger and stay cable types (e.g. locked coil cables, parallel wire cables).

Depending on the cable type, the ultrasonic probe is placed at the wire end buttons or on the wire surface. Ultrasonic signals, sent into the single wires, will then be reflected by anomalies in the wire. Cracks can be detected even within the sockets or under cable clamps.



References

Second Bosporus Bridge (Fatih Sultan Mehmet Bridge), Istanbul, Turkey

- Magneto-inductive inspection of selected hanger cables along the ropes' free sections

Köhlbrand Bridge, Hamburg, Germany

- Magneto- inductive inspection of 80 full locked stay cables

Solidarity Bridge, Duisburg, Germany

- Ultrasonic inspection of all full locked hanger cables at the end anchorages
- Magneto- inductive inspection of all full locked hanger cables along the free cable sections

Malpensa Airport Bridge, Italy

- Ultrasonic testing of the strand anchoring sections at selected parallel strand stay cables
- Ultrasonic testing of the strand anchoring areas at selected pre-tensioning cables

Zárate-Brazo Largo Bridge, Argentina

- Ultrasonic testing of the anchorages for all 144 parallel wire stay cables and validation of the testing procedure

Rhein-Bridge Wesel, Germany

- Magneto- inductive inspection of all parallel strand stay cables along the free cable sections
- Automatic visual testing of all parallel strand stay cable cladding tubes along the free cable sections
- Visual testing of other safety-relevant cable areas (e.g. bundling elements, end anchorages)