



SINT
Technology

*Measurement and analysis of torsional
vibration and torque*

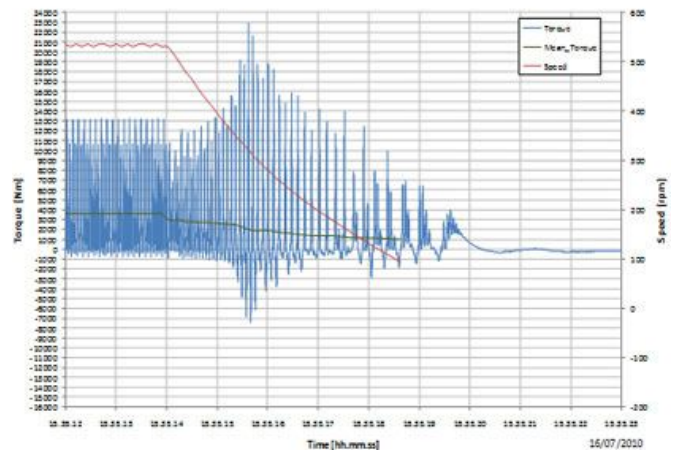
Measurement and analysis of torsional vibration and torque

Torsional vibration measurement and analysis is an important instrument for characterization, monitoring and diagnostics of machinery and plants.

SINT Technology has many years of experience in the field of measurement and analysis of torsional vibration and torque.

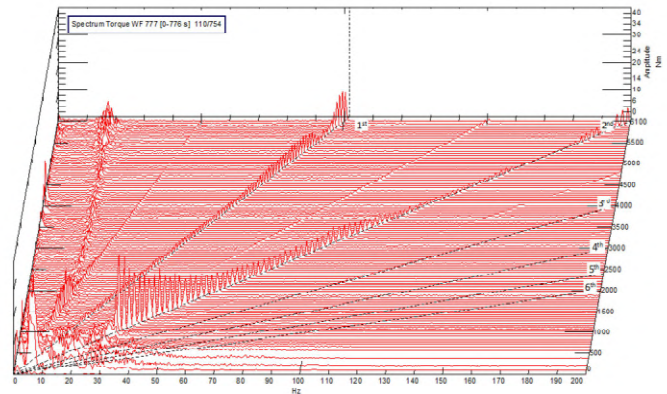
Our services are characterised by:

- the professionalism guaranteed by highly skilled engineering technicians
- dynamism and flexibility
- willingness to perform testing on the customer's plant in all parts of the world
- detailed reporting in accordance with the customer's requirements and the main international technical standards



SINT Technology operates in various areas:

- OIL & GAS
- Energy
- Rail
- Automotive
- Aviation
- Paper
- Steel
- Civil



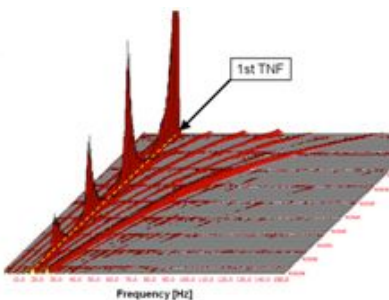
Torsional vibration and torque

Analysing **vibration and torsional resonance** is an extremely effective diagnostic tool for identifying abnormal conditions during operation of a machine which can lead to damage, such as:

- Coupling/drive shaft failure
- Accelerated gear wear and gear tooth failure
- Key deformation
- Slippage of coupling hubs
- Premature wear of electric motor windings
- Irregular output



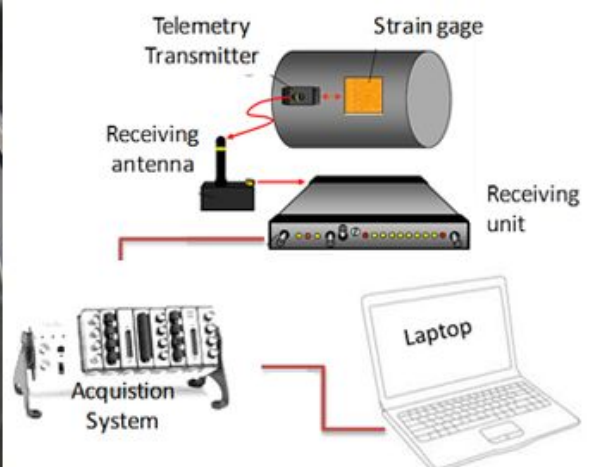
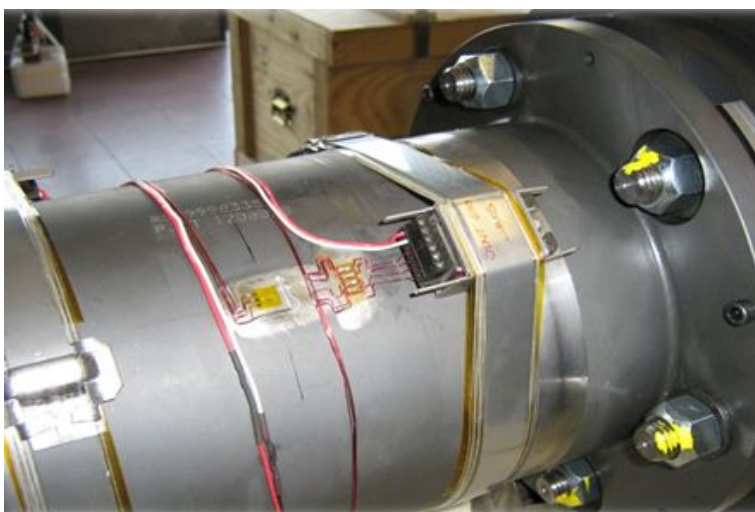
SINT Technology can perform torsional analyses on a wide range of machinery thanks to its advanced measurement systems and processing software.



Measurement of torque and shaft speed enable transmitted mechanical power to be determined.

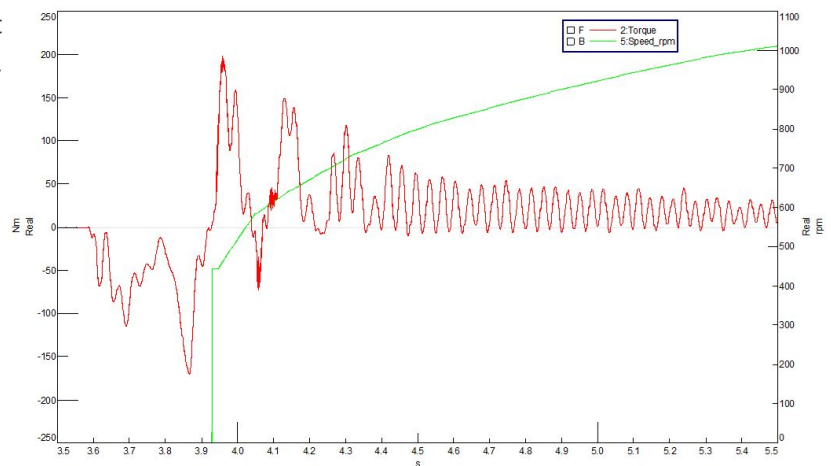
When a greater accuracy of measurement is required (for example, in machinery tests and inspections, acceptance tests, etc.), it is necessary to calibrate the instrumented coupling.

SINT Technology can offer a torque meter (instrumented coupling) calibration service with its in-house calibration facility, which can calibrate couplings for transmission of torques up to 12 kNm.



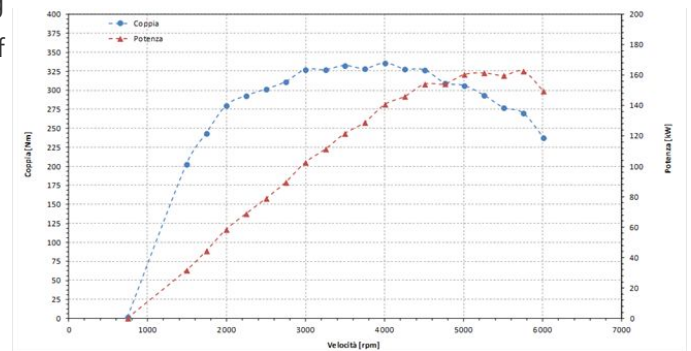
SINT Technology performs measurement and troubleshooting services for reciprocating and rotating machinery, such as:

- Gas turbines
- Steam turbines
- Electric generators
- Centrifugal compressors
- Axial compressors
- Reciprocating compressors
- Electric motors



With its advanced measurement systems and processing software, SINT Technology is able to perform any type of signal analysis:

- Frequency domain analysis (FFT)
- Time domain analysis (Trend)
- Transient analysis (start-up and coast-down)
- Waterfall charts
- Bode diagrams



INSTRUMENTATION

SINT Technology has an extensive range of instruments for torsional vibration measurement and analysis. A list follows of the main sensors and instruments at its disposal:

- Battery powered telemetry systems (up to 8 channels), quick to install, for short and medium term applications
- Inductive powered, 2-channel telemetry systems (for long term applications)
- Signal conditioning and acquisition systems
- Advanced signal processing software
- In-house calibration facility for torque meters up to 12 kNm

Standards

Field of application	Description	Standard Code
Reciprocating engines	Reciprocating internal combustion engines — Performance — Part 5:Torsional vibrations	ISO 3046-5



SINT
Technology

Contact Us

Via delle Calandre, 63 - 50041 Calenzano (FI) ITALY

Tel: +39.055.8826302

Fax: +39.055.8826303

www.sintechnology.com

info@sintechnology.com

VAT IT04185870484

Recognitions

SINT Technology's test laboratory is accredited to standard ISO/IEC 17025:2005 by the Italian accreditation body **ACCREDIA** with **certificate no. 0910**



LAB N° 0910

Certification of conformity to the requirements of standard

UNI EN ISO 9001



ISO 9001 = OHSAS 18001