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#### Where we are

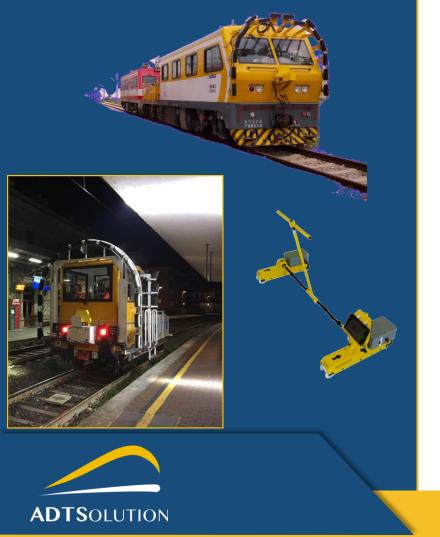
The main scope of **ADTS** is to design and produce measurement systems based on client specification.

**ADTS** is also involved on specific R&D project committed by world wide company.

**ADTS** ensures a professional and impeccable service to satisfy the customer in the best way.

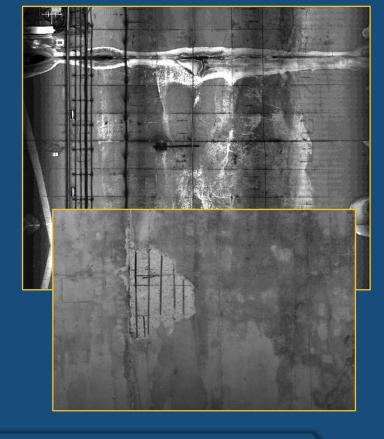
**ADTS** team is composed by mechanical, electronic and software engineers whose attitude allow us to offer our customer the best solutions.





# **Product**

- Tunnel Scan
- Rail Profile
- Wave Partner II
- Portable Rail Profile RPT500
- Thermal Camera
- Over Head Line
- Clearance Measurement System





## **Tunnel Scan**

**TUNNEL SCAN** is able to bring diagnosing tunnel to a new high level of information and quality.

The high standard technology allow to grab image at very high resolution.

The **TUNNEL SCAN** is composed by a profilometer and optical systems able to acquire images every millimeter and produce the shape of the tunnel at the maximum speed of 60Km/h.

The software review its possible to measure:

- Complete Tunnel Clearance;
- Non-destructive measurement;
- Crack Detections;
- Defect Measurement in length, area
- Generate Report;
- Aided by artificial intelligence;



## **Rail Profile**

The **Rail Profile** measurement system has been designed for an installation on rail grinding machine in order to monitoring the rail shape before and after the grinding operation **RGMS** or as rail profile measurement system **RPMS**.

The difference between **RPMS** and **RGMS** is the software configuration. During the operations the operator has a real-time feedback on how change the shape of the rail during the rail grinding procedure.

The software comes with many useful tools and has been developed to be very easy to use. The simple technical design allows the customer to install the system autonomously.

15/01/2021



#### **Wave Partner II**

Irregularities on the wheels and on the tracks cause noise and vibrations and these cause damage to the components of both the vehicle and the rail.

The **Wave Partner II** is a portable corrugation measurement trolley is suitable for all kind of rails included the U-Rail type. The wavelengths (10  $\div$  1000mm) are precisely measured with a 3 $\mu$ m accuracy.

The **Wave Partner II** is the necessary inspection instrument to verify the condition of the rail before and after the grinding.

The **Wave Partner II** generate an immediate qualitative and numerical report in order to predict a proper maintenance action or check the quality of the grinding. The user-friendly software allows any operator to manage the instrument from the very first moment.







#### **RPT 500**

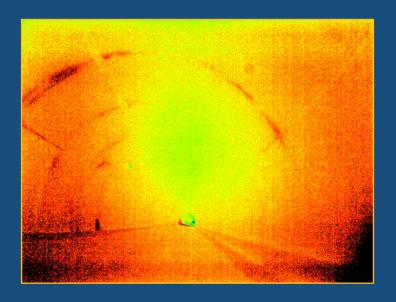
**RPT500** is a portable trolley and has been designed for measuring tracks with a focus on low weight.

**RPT500** is very simple to use and thanks to laser technology it allows to carry out non-invasive and precise measurements.

**RPT500** is capable of measuring wear and saving standard and grooved rail profiles with acquisition ranges from 10mm to 2000mm.

The acquisition software allows you to view the track profile in real time up to a speed of 5 Km/h. The office software can analyze the acquisition and show the wear of the tracks. The system is equipped with a robust military PC.



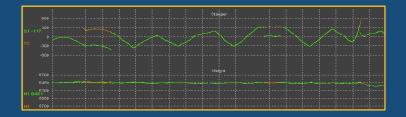


# **Thermal Camera**

The use of thermal cameras is the new frontier for railway diagnostics.

An algorithm based on artificial intelligence is able to detect insignificant details to the human eye, bringing to light deteriorations that previously could not be detected.







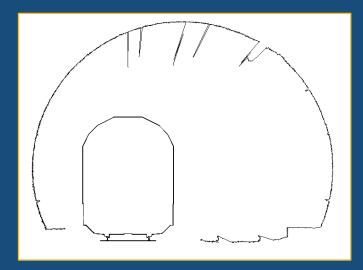


The **OHL** inspection system is measurement system that can guarantee safety and the normal service of the railway line.

An **OHL** system can provide the geometric position of overhead line referred to the track center that allow the overhead management office to determine the wire condition and to plan the maintenance.

A real-time report is generated in order to provide to the operation the line condition.



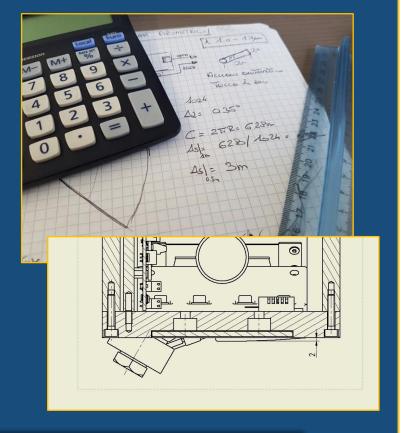


## **Clearence Measurement**

The system, using a rotating laser mirror, scans a 360° radius of the transversal profile of the railway line, so that violations with respect to the admitted profile are detected and alarm are reported

Moreover, the **Clearance Measurement System**, thanks to its modular design, can be easily integrated with the **Tunnel Scan System** in order to provide the users with digital acquisitions of the line, or parts of the same, where the line parameters exceed the control thresholds.





### **Tailor made**

We are committed to developing turnkey solutions at the customer's request with particular attention to railways and automation.

All our systems can be fully customizable to fully satisfy the customer's needs. We offer not only the measurement of the phenomena but all the knowhow connected to it and we support the customer in all maintenance matters.

Our experience in railway diagnostic systems and the approach to the "**Tailor made**" problem allow us to guarantee complete customer satisfaction with an unbeatable value for money.



