



# METAL & STEEL INDUSTRY

# CMS

**CONTROLE MESURE SYSTEMES**

*Non Destructive Testing and Inspection  
solutions by Eddy Current and Ultrasonic*



**CONTROLE  
MESURE  
SYSTEMES**



*Made in France*

[www.cmseddyscan.com](http://www.cmseddyscan.com)



## METAL & STEEL INDUSTRY

Since 1988, CONTROLE MESURE SYSTEMES designs and manufactures NDT equipment using Eddy Current and Ultrasonic testing.

We provide customized and turnkey solutions to guarantee an efficient and reliable quality inspection for your tubes, bars, and wires.

### ► By Eddy Current method

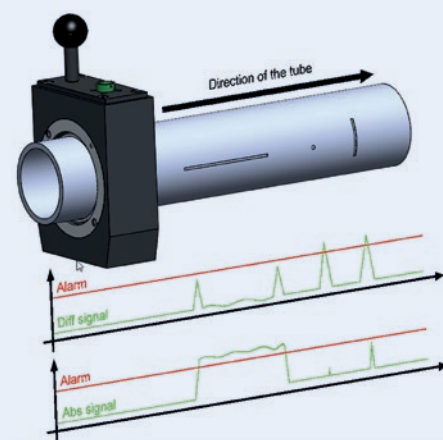
#### ▪ Detection of short and transverse defects:

Inspection using an Eddy Current encircling or segment coil to detect short and transverse defects, as well as open welds. This method allows to inspect magnetic or non-magnetic products with various profiles and at high speed.

These transducers will be connected to our Eddy Current generators Zet@Micro or Zet@Premium.

The user-friendly interface of our software allows the operator to adjust the Eddy Current settings, the display of the signals, and the alarm thresholds.

- ✓ The Production software creates inspection reports automatically
- ✓ Several features are included in the standard version, such as the management of delays and outputs for sorting or marking operations
- ✓ Many accessories can be associated to inspect ferromagnetic products (magnetizing yoke, opening magnetizing unit, sectorial magnetizing unit...)



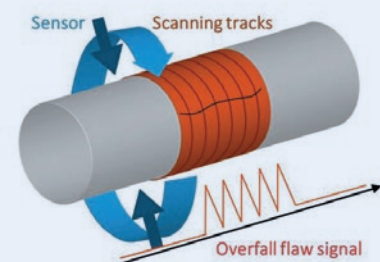
Quality experts  
you can rely on

#### ▪ Detection of longitudinal defects:

The CMS's concept of Eddy Current Rotating Head RotoETscan allows longitudinal defects detection. Several Eddy Current sensors rotate around the product to be inspected at very high speed and ensure a full coverage of the entire product surface.

Our RotoETscan range connected to our Zet@Master allows to reach an inspection speed up to 6m/s and to cover a product range from 0.8 mm to 220 mm diameter.

The inspection results are displayed in real-time and the inspection traceability is provided by our Production software that creates inspection reports per tube and/or batch.



- ✓ The Production software creates inspection reports automatically
- ✓ Several features are included in the standard version, such as the management of delays and outputs for sorting or marking units
- ✓ Several versions of probes are available in double function and in driver pick-up function
- ✓ Probes with various sizes of active elements can be installed
- ✓ Several options are available like floating arms for safety of the probes, adjustable rotating plate...

### ► By Ultrasonic method

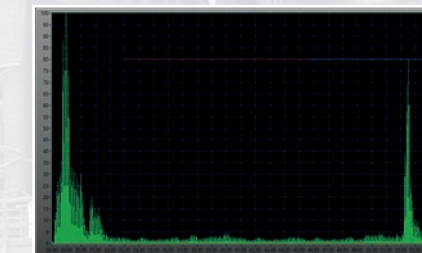
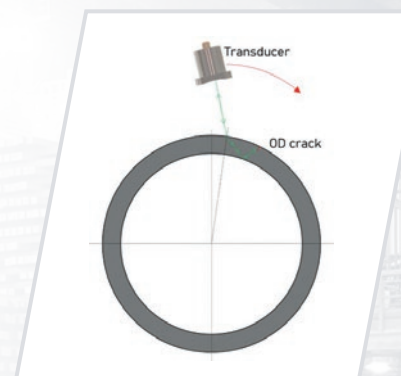
#### ▪ Tube inspection by Ultrasonic Rotating Head, range of RotoUTscan:

CMS designs and manufactures a full range of Ultrasonic Rotating heads, named RotoUTscan. It allows to handle tubes from 4 to 450 mm diameter. The Ultrasonic transducers are submerged in water, while rotating at very high speed around the tube passing through the head.

Internal and external defects such as longitudinal, transverse and oblique are detected by our range of RotoUTscan. The size of inspected defects can be as small as 1.58 x 0.1 x 0.025 mm.

A RotoUTscan connected to our Ultrasonic instrument called MultiUTscan is also able to carry out highly accurate dimensional measurements (WT, ID, OD, eccentricity, ovalization (accuracy of  $\pm 3 \mu\text{m}$ )).

- ✓ The Water path of each transducer can be synchronized or adjusted individually
- ✓ Incidence angle and correction of 2 squints are easily adjustable
- ✓ Contactless signal transmission (capacitive module)
- ✓ Inspection speed up to 2m/s
- ✓ Very high signal repeatability (< 1dB)
- ✓ Pulse Repetition Frequency (PRF) up to 20 kHz

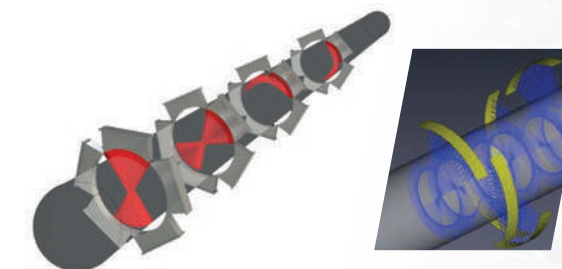


CMS, the assurance of a quality inspection

#### ▪ Bars Inspection by UT line range:

Our high-quality inspection solutions use Ultrasonic Phased Array probes integrated into fully automated testing systems to meet even the most stringent requirements for volume inspection.

UT line range is an Ultrasonic Phased Array in-line testing system which integrates several encircling PA transducers. These transducers are located in an immersion tank within the floating head.



The PA transducers' configuration is defined according to the standard defect size and the required inspection speed. Common standard defect size: FBH 0.7 mm and SDH 0.5 mm.

The full traceability of this inspection is provided by our Probus software and the inspection report is created per bar and per batch.

- ✓ In-line 100 % volume inspection
- ✓ Very high inspection speed up to 2 m/s
- ✓ Floating head concept
- ✓ Round and square bars inspection in one system



Find out more on our website: [www.cmseddyscan.com](http://www.cmseddyscan.com)



## ► By Eddy Current and Ultrasonic method

### ▪ *Combined NDT bench with Eddy Current and Ultrasonic testing equipment:*

CMS designs and manufactures a high performance inspection solution for tubes and bars. Surface inspection through Eddy Current and core inspection with Ultrasonic allow a 100 % testing of the product. Thanks to our know-how and our 35 years of experience in NDT, we are able to offer a tailor-made solution to perfectly match your requirements.

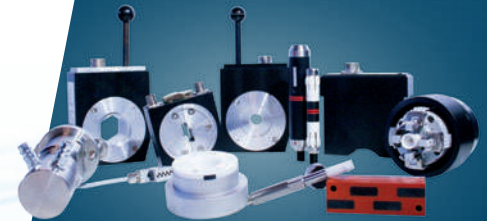


The control instruments (ET or UT), the software, and the NDT generators are all developed by CMS.

Our own monitoring software named **Probus** collects all the data from the different NDT equipment, allows the inspection's traceability and creates reports per tube/bar and batch.



*Smart and reliable  
solution for a high  
quality inspection*



*Thanks to a deep knowledge  
in NDT and skilled technical  
crews, CMS is also able to offer  
the entire handling system with  
PLC automation.*

*CMS can integrate other NDT  
equipment such as laser gauge,  
spark spectrometry, etc.*

*Find out more on our website:*

[www.cmseddyscan.com](http://www.cmseddyscan.com)



*Made in France*

Founded in 1988,  
**CONTROLE MESURE SYSTEMES (C.M.S)**  
is a French private and independent  
company based in Burgundy.

We design and develop a full range of high performance Non Destructive Testing equipment (NDT): instruments, Eddy Current and Ultrasonic rotating heads, ET probes and UT transducers as well as a full range of accessories. We work with the following industrial sectors: Aeronautics, Automotive, Oil & Gas, Nuclear, Steel and Railway.

Our teams of engineers specialized in R&D, mechanical, electrical, and software, innovate in state of the art technologies to ensure a constant improvement of our products. We offer high performance and customized solutions that are fully adapted to the quality requirements of our customers.

*We export our know-how worldwide through our subsidiaries and our network of agents, enabling us to be one of the leading suppliers in Eddy Current and Ultrasonic Non Destructive Testing.*

## Contact us

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