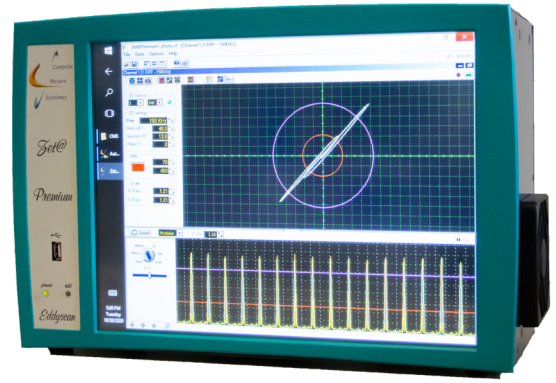# ZET@PREMIUM

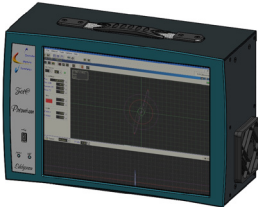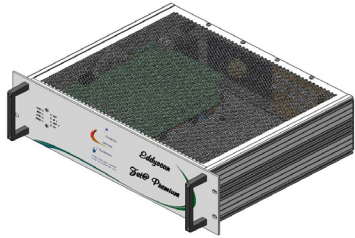## THE COMPACT EDDY CURRENT INSTRUMENT DESIGNED FOR DEFECTS DETECTION AND MATERIAL SORTING.

Simplified version of Zet@Master instrument, which can support up to 2 inspection channels at high speed.
Compact and easy to use, it is suitable to the most common Eddy Current defects detection applications.
A MS version (dedicated to material sorting, heat treatment verification...) make it a complete inspection instrument at low cost.
Zet@ Premium is available in standard or rackable version to facilitate its integration on production line.

MAIN ADVANTAGES

- Touchscreen instrument (standard version), compact and easy to use
- Real time display of the location of the defects (with encoder and production software)
- Suitable with defects detection and material sorting applications
- Very high inspection speed
- Universal system meeting the requirement of international normatives (ASTM, API, DIN, SEP...) and certified ISO 15548-1
- Complete I/O interface for communicate with production lines
- Analog interface and encoders
- Possibility to have inspection report (with production software, in option)
- Runs under Windows

RANGE OF PRODUCTS

|	Standard	Rackable 3U
Dimensions (mm)	265x240x160 (HxWxD)	131x482x344 (HxWxD)
Weight (Kg)	8	5,5
Power	100-240 VAC - 50-60 Hz	
Number of channels	Up to 2 channels	

OPERATING PRINCIPLE

The instrument is driven by configuration software, allowing to define EC parameters adapted to the application, such as measure settings and alarm thresholds for defects

The signal analysis is performed entirely by the electronics of the instrument, which guarantees a display in real time of the inspections results.

The opto-isolated inputs / outputs of the instrument allow quick and easy interfacing with the production line.

STANDARD EQUIPMENT

- Single channel equipment
- EC setting software
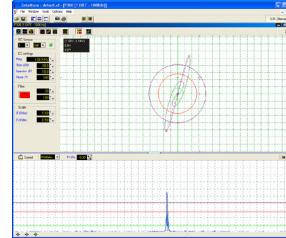
OTHER CONFIGURATIONS AVAILABLE

- Possibility to use 2 differential channels or absolute channel and a differential one

- Personalized softwares adapted to the desired inspection : production software for long and short production inspection, material sorting...

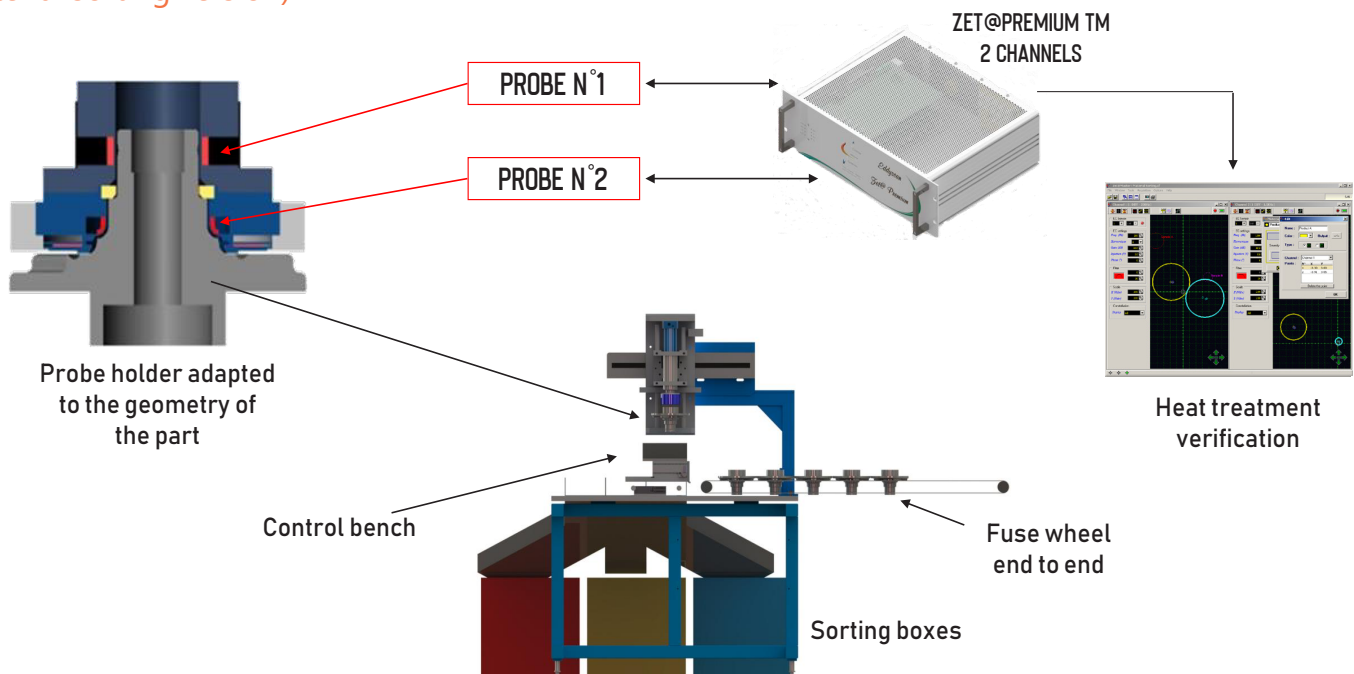- Network connection for remote assistance
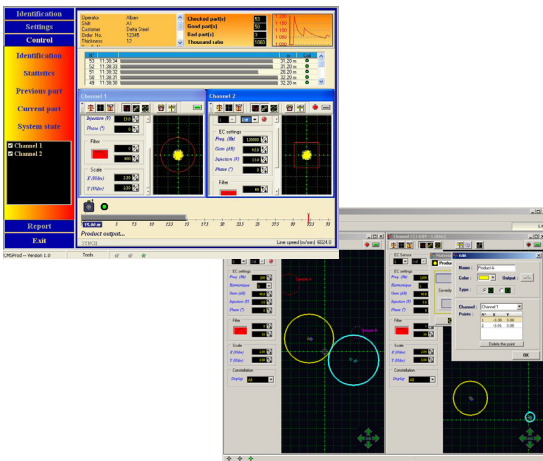
ASSOCIATED SYSTEMS

- Eddy Current systems such as magnetizing units, sectorial magnetizing units, supports coils...
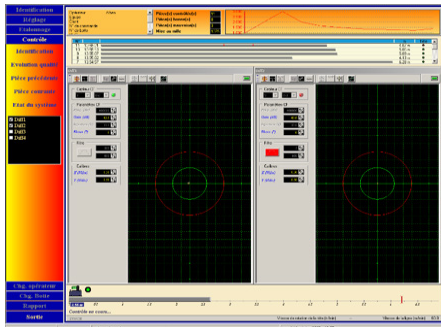- All EC probes and coils single channel

CONFIGURATION EXAMPLE

Inspection systems for heat treatment presence verification in automotive fuse wheel parts (material sorting version)

ZET@PREMIUM TM
2 CHANNELS

PROBE N°1

PROBE N°2

Probe holder adapted to the geometry of the part

Control bench

Heat treatment verification
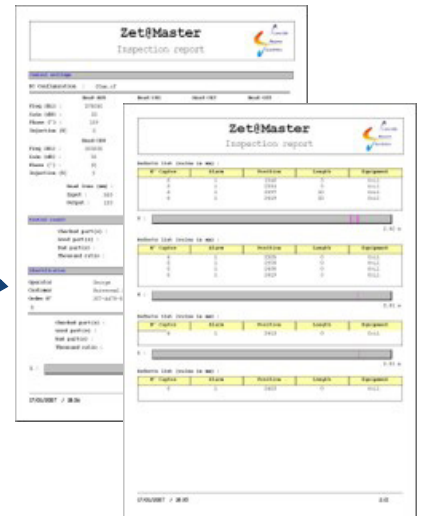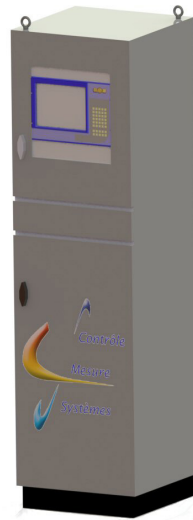
Fuse wheel end to end

Sorting boxes

CONFIGURATION EXAMPLE

Detection of longitudinal and transversal defects on small cylindrical parts (cylinders, injection nuts, billets, piston pin, gudgeon pin...)
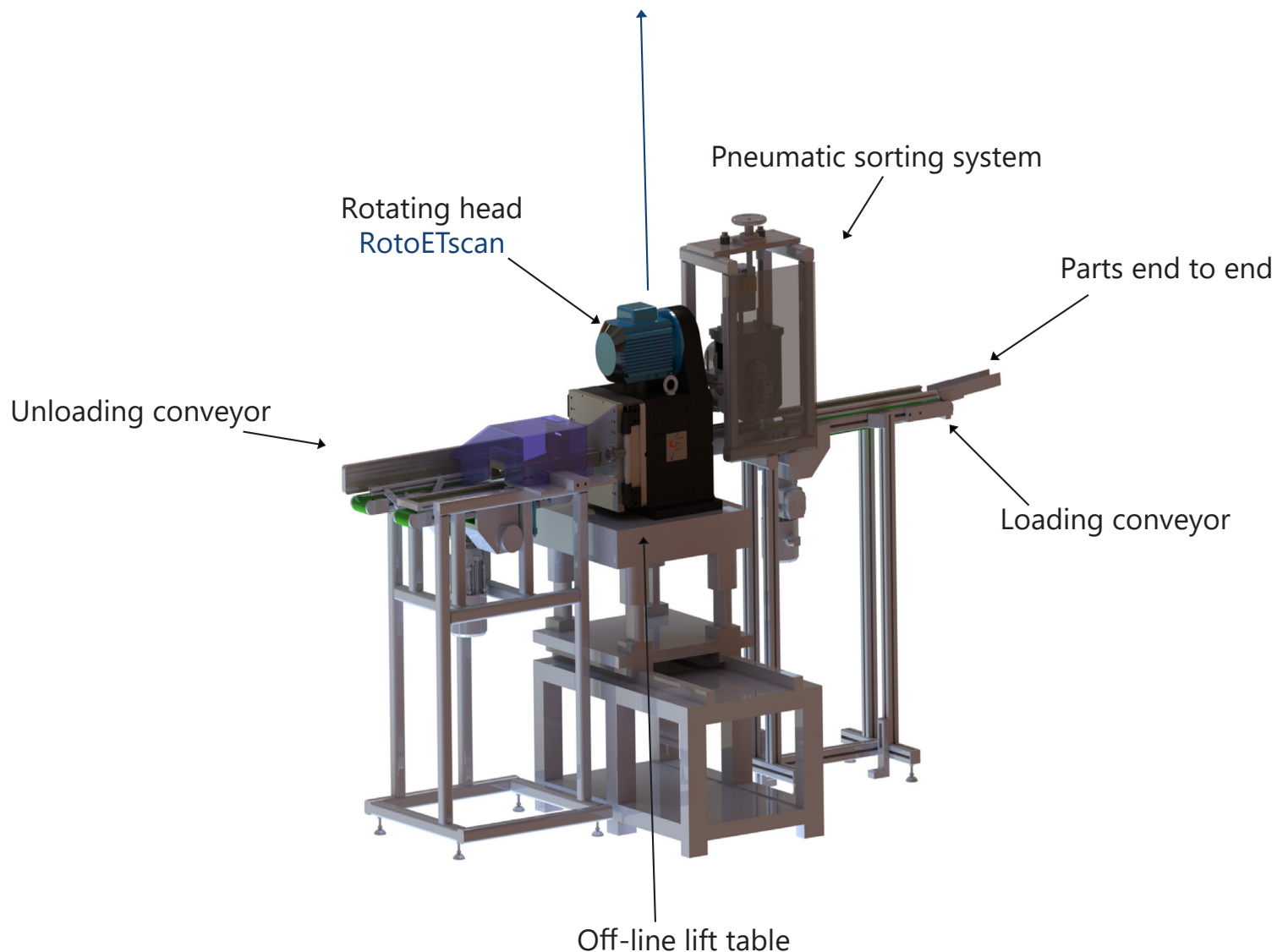
Zet@Master 3 channels
2 for defects detection
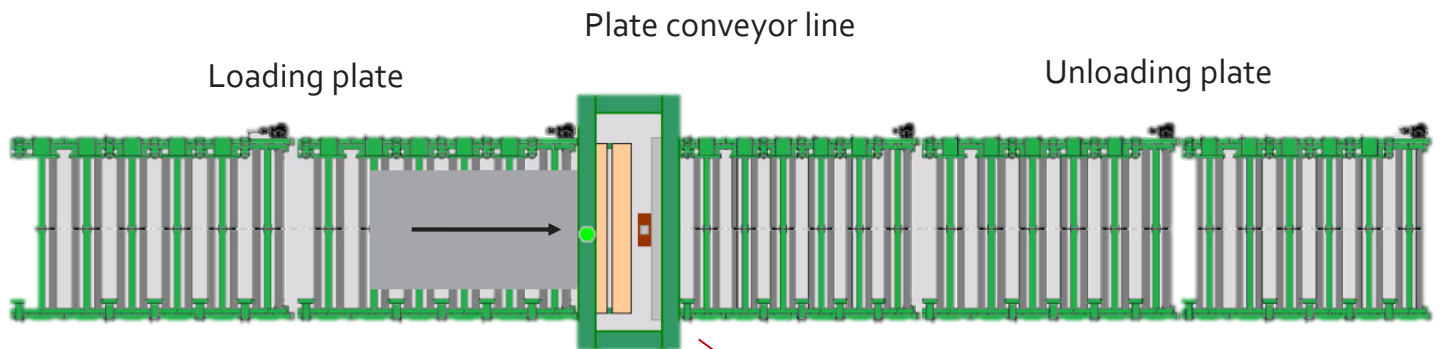1 for detection of end parts

Production software

Inspection reports

Pneumatic sorting system

Rotating head
RotoETscan

Parts end to end

Unloading conveyor

Loading conveyor

Off-line lift table

CONFIGURATION EXAMPLE

Conductivity measurement on the two faces of aluminium plate for aeronautic market

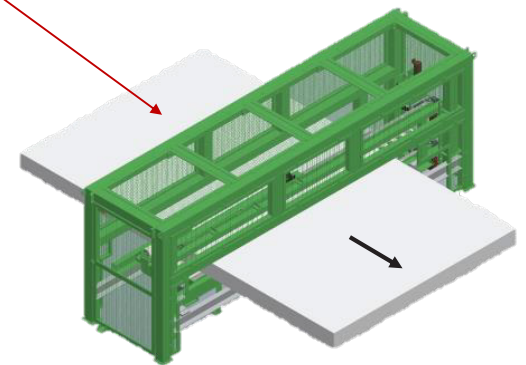Plate conveyor line

Loading plate

Unloading plate

The fully automatized system consists of a robust mechanical frame (with input and output conveyors, plate centering system) and a control station consisting of linear axis probe holders and multi-channel EC equipments for conductivity measurement.

The plate moves automatically along the conveyors, passes through the control station to carry out the conductivity measurement, scanning with an EC sensor along and on both sides of the plate.
The results are processed, displayed and stored in Zet@Master instruments for data processing.

Control station for conductivity measurement

The conductivity of the 2 faces of the plate is displayed on a colored mapping in order to visualize quickly the conductivity's data and its dispersion.
The data are stored for inspection reports, keeping all the measured values and their exact location on the plate.