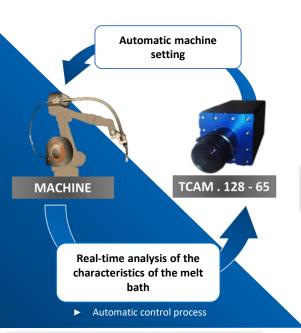


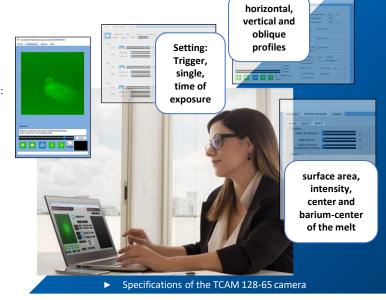
REAL-TIME PROCESS CONTROL CAMERA FOR WELDING AND ADDITIVE MANUFACTURE.

The TCAM128-65

TPSH has developed within the context of the FALAFEL project and after 5 years of R&D, a SMART infrared camera, TCAM 128-65©, allowing real-time control of the physical parameters of the melt for :

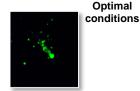
- YAG TIG MIG MAG LASER FSW welding,
- LM and DMD additive manufacturing





rpecifications

- Real-time control of the machine on the camera measurement data (feed, power, distance)
- Integrated processor capable of real-time analysis of the bath condition by 200 Hz image processing
- Image synchronization with machine parameters



Wrong power

/speed ratio

Optimal

advantages

- Real time NDT.
- Strong reduction of post-processing control of the workpiece and uncontrollable areas with conventional NDT methods,
- X-ray control or localized tomography at the end of manufacture,
- Turnkey system easy to integrate into a machine,
- In-process control of the production process,

benefits

- **REAL-TIME MANUFACTURING ANALYSIS**
- INDEPENDENT CONTROL SOLUTION
- QUICK AND EASY TO USE
- **CUSTOMIZABLE HMI**



Poor focus



SOLUTION FOR FACTORY 4.0 | 5.0 INNOVANTIVE TECHNOLOGIES



For nearly 30 years, we have been working on technology developments by automating the controls of large industrial companies to increase their productivity and improve the quality of deliverables. Our objective is to assist the operator in the visual control phases using robotics/cobotics and automatic control. Our systems allow us to reduce exported non-quality, participate in the reduction of MSD (Musculoskeletal Disorder) related to painful and repetitive manual tasks and ensure the traceability of the results in all transparency

VISUAL INSPECTION REPLACEMENT

AUTOMATIC 3 D MEASUREMENT

NDT ADAPTIVE POLISHING GRINDING BURDING



MANUAL Mc GUN2D/3D Automatic control of rivet and appearance defects



CONFOCAL SENSOR Automatic 3D measurement at very high speed



TOCATA Multi-technology NDT



ADAPTIVE POLISHING For blades



TIME MODULE



COBOTIC S - C M 2 Automatic control by



Automatic adaptive 3D measurement of aeronautical blades



ULTRASONIC **Eddy Currents**





COBOTIC

artificial vision

S - C M 2

Automatic control by artificial vision





SMART CAMERA IR REAL TIME



COBOTIC

S - C M 2

Automatic control by artificial vision



LASERSENSOR

LASER

SENSOR

Robotic adaptive automatic scanning for the foundry

Robotic adaptive automatic

scanning for mechanics



Real-time control



Robotics

Cobotics Special **Machines**

Mathematical Algorithm 2D/3D

Windows Linux **Embedded** Monitoring Software

Infrared **Image**

Electronics and sensors





S - C M 2

Automatic control by artificial vision



ROBOTIC

S-C5 et S-C6 Automatic control by

artificial vision



MACHINE



SPECIAL MACHINE





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Automatic control by



