

10 TECHNOLOGIES / 30 APPLICATIONS / 8 STATIONS



## IT'S TIME FOR A CHANGE

It's an evolution, it's a revolution.

Industry evolves with The Internet of Things, the Industrie 4.0 and the Smart Production,... An even if the name varies internationally, the main idea stays the same.

Focused to be the best business partner and to add value to any production line, Lazpiur sets the path in terms of design, productivity, control, user freindly and digital interaction concepts.

The all new IRIS RT1, RT2, RT3 (Rotating Table Based Machines) and IRIS LT1, LT2 (Linear Transfering Machines) have been developed entirely re-thinking the hole process and setting the new standard of 100% Inspection Machines.



# IRIS SERIES INSPECTION MACHINES

For us, future is today.

The IRIS Series Inspection Machines are faster, more modular, adaptative, compact, intuitive and user friendly.

### 10 TECHNOLOGIES / 30 APPLICATIONS / 8 STATIONS





















### **ADDING VALUE**

#### 1.FOR BUSINESS

### **HIGH-TECHFACTORY**

Lazpiur opts for our modern compact design in order to optimize and modulate processes. Customizable light control which offers collaboration setting to the client.

#### PROCESS CUSTOMIZATION

Starting from a base standard product, inspection process is easily adapted and customized to customer process requirements.

#### **SCALABILITY**

Depending on your required inspection process, you can build an inspection line configured with Lazpiur's standard inspection technologies.

#### 1.FOR PRODUCTIVITY

#### **FASTER RATIO SPEED/INSPECTION**

Integrates in the new inspection software platform up to 25% more features controlled in the same time compared to the previous platform .

#### **NEW UI & INSPECTION ALGORITHMS**

Integrates the newest UI & Inspection algorithms that permits to use the latest vision features in the easiest way.

### **CUSTOMIZABLE CONFIGURATION**

Opts for our modern compact design in order to optimize and modulate inspection processes. Customizable machine configuration which allows to have different machine settings over the same plattorm.

### **EASILY INTEGRABLE FEEDING & PACKAGING**

Different kind of feeding systems and/or backaging systems are integrated with the inspection machine in an easy way and can be directly connected to and managed by the inspection machine.

#### 1.FOR PEOPLE

### **NEW USER FRIENDLY INTERFACE**

The machine comes with Lazpiur's new User Interface with user friendly & up to date screen organization.

### FULLY ERGONOMICS / EASYACCESS&CHANGEOVER

Each inspection station can be retired with a robust rail system to an exterior position with total accessibility for the operator. The change is now faster, simpler and more confortable.

#### **BEST-IN-CLASS INSPECTION ALGORITHMS**

New Lazoiur's Machine Generation integrates Lazpiur's latest software developments and allows to inspect a wide variety of features: from the most simple piece to the most complex ones.

#### **1.FOR MAINTENANCE**

### TOTAL ACCESS FROM OUTSIDE

The machines have total access to working area from the four sides of the machine.

With folding opening doors. Electrical cabinet has an independent place inside the machine and computing hardware is in a separate placement also.

#### OPTIMIZED ERGONOMY

All the inspection stations can be retired backwards in a simple maller, leaving free access to the machine plate. Besides, the access to all inspection station optimised.

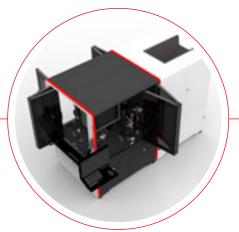
#### REMOTE ASSISTANCE

IRIS RT & LT machines are equipped with a remote access option. This will allow Lazpiur's technicians to connect from their work station and provide a reliable diagnosis in case of any possible incident.







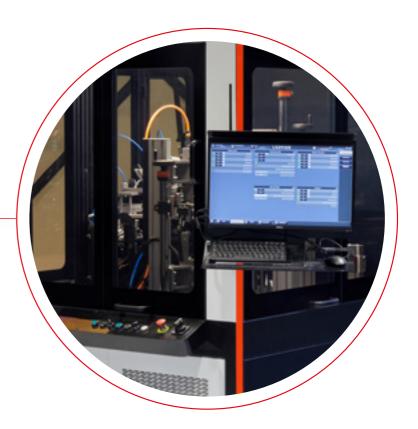


**IRIS Series Inspection Machines** 

## 10 TECHNOLOGIES FOR 30 APPLICATIONS IN 8 STATIONS

Max Round: Ø 50 – L 250. Max Square: 100x100x250

**Speed:** 20 -700 pieces/minute.

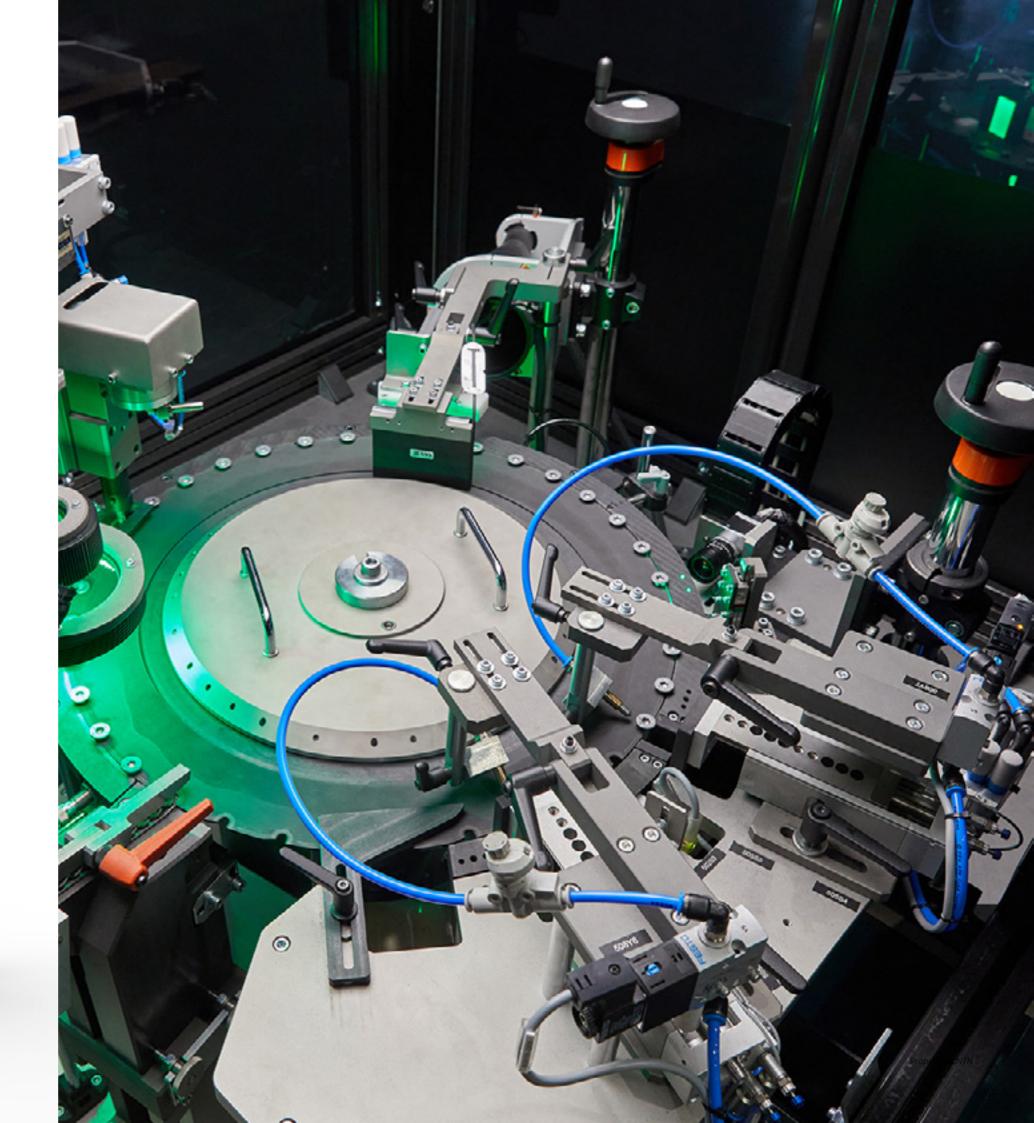


		MACHINE VISION			EDDY CURRENT ROUGHNE		S MECHANICAL STATION			COLORIMETY LED 3D SCANING			THERMOGRAPHY	STEREO PHOTOMETRY	ULTRASONIC STATION	MACHINE LEARNING	
	DIMENSIONS	IMENSIONS SHAPES INNER	INNER DEFECTS	TS CRACKS	HARDNESS	ROUGHNESS	HOUSING SHAPE	GO-NoGO	TOUCH PROBE MEASURING	SURFACE TREAMENT	HEIGHT MATRIX	SURFACE DEFECTS	5 DIMENSIONS/VOLUME	INNER DEFECTS	SURFACE DEFECTS	INNER MATERIAL DEFECTS	
1 CAMERA + FLAT BACKLIGHT	X																X
1 TELECENTRIC CAMERA + FLAT BACKLIGHT	X																X
1 TELECENTRIC CAMERA + TELECENTRIC BACKLIGHT	X																X
2 TELECENTRIC CAMERAS + FLAT BACKLIGHT	X																X
2 CAMERAS AT 60° + 2 FLAT BACKLIGHTS	X																X
2+2 CAMERAS AT 60P + 2 FLAT BACKLIGHTS	X																×
1 CAMERA + FRONTLIGHT	X	×															×
360 <sup>®</sup> ROTATION (Between points)	X	×													x		×
360P ROTATION (With Grippers	X	X													X		×
360* ROTATION (Between points)				X								x					×
360* ROTATION (With Grippers)				X								x					×
4 CAMERAS AT 90° with RINGLIGHT	X																X
1 or 2 INCLINED CAMERAS with FRONTLIGHT	X	×															×
BOTTOM MATRIX PHOTOMETRIC with MANIPULATOR															X		X
UPPER LINEAR PHOTOMETRIC															X		×
BOTTOM LINEAR PHOTOMETRIC															X		×
UPPER MATRIX PHOTOMETRIC															X		×
BOTTOM MATRIX PHOTOMETRIC with MANIPULATOR															x		×
LATERAL LINEAR PHOTOMETRIC in 360°															x		×
LINEAR LED 3D SCANNING											×	x	×				×
BOROSCOPE /HOLE INSPECTION,			x														×
TORX MECHANICAL INSPECTION							X										X
GO-NoGO MECHANICAL INSPECTION								X									×
TOUCHPROBE MEASUREMENT									Х								X
CRACK INSPECTION (EDDY CURRENT)				X													X
HEAT TREATMENT INSPECTION (EDDY CURRENT)					X												×
ROUGHNESS						X											X
COLOUR DETECTION										х							X
THERMOGRAPHIC VISION														x			X
ULTRASOUND																X	×

# SCOPE OF INSPECTION MACHINES

- Pieces always in movement.
- Pieces are always transferred through different inpsection stations.
- Lazpiur's mechatronic transferring Know-How:
- Rotary Transferization
- Linear Transferization





## **TECH & SW KNOW-HOW**

### **VISION SOFTWARE & HMI**









### **INSPECTED PIECES EXAMPLES**











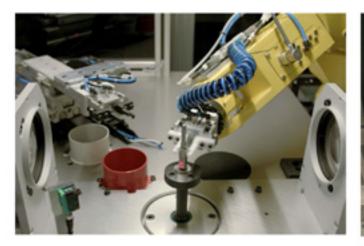


IRIS Series Inspection Machines

### **TECH & SW KNOW-HOW**

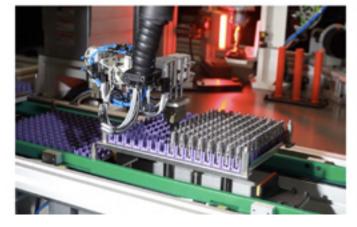
### **PIECES FEEDING**

Our inspection solutions are perfectly integrated with differente feeding systems.





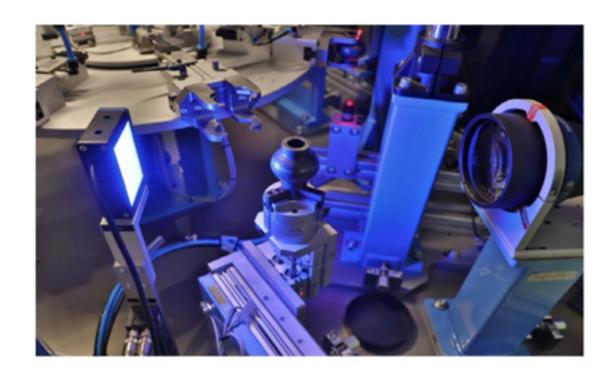
ROBOT

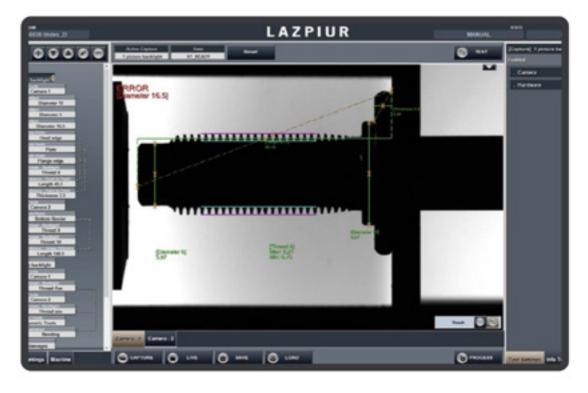




VIBRATION

### DIMENSION INSPECTION WITH TELECENTRIC VISION + BACKLIGHT

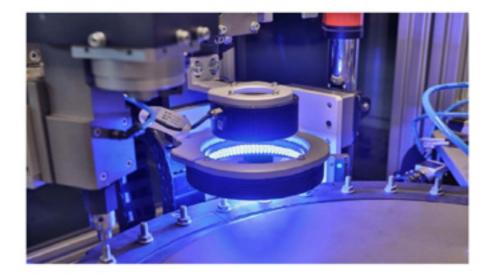


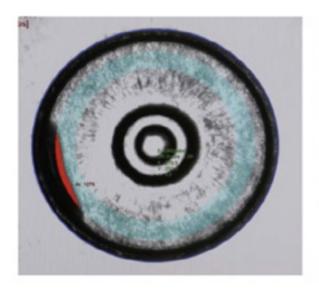


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### **TECH & SW KNOW-HOW**

SHAPE/ASPECT INSPECTION WITH FRONT CAMERA + FRONTLIGHT







### HEAT TREATMENT INSPECTION WITH EDDY CURRENT





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## **TECH & SW KNOW-HOW**

### CRACK INSPECTION WITH EDDY CURRENT

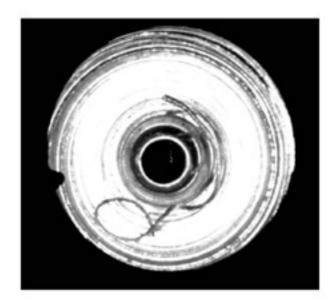


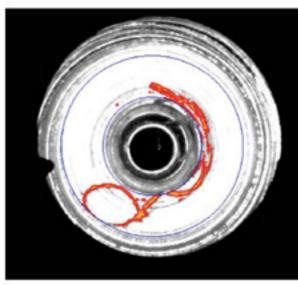




### INNER HOLE INSPECTION WITH BOROSCOPE







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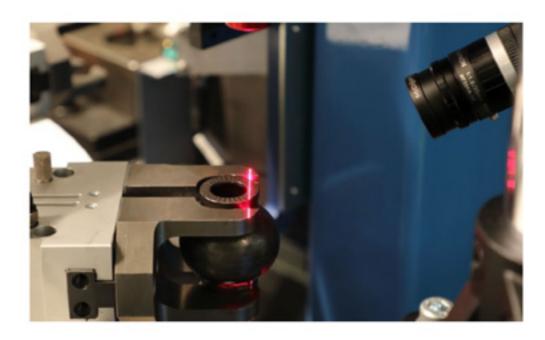
## **TECH & SW KNOW-HOW**

### **MECHANICAL INSPECTIONS**

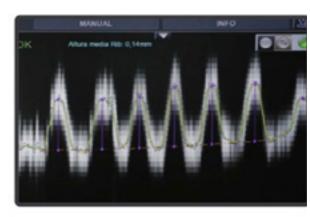




### **LED 3D SCANNING INSPECTION**





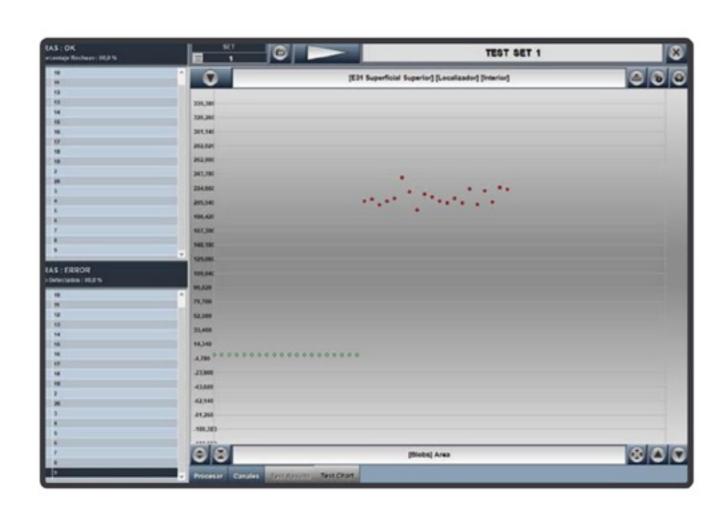


IRIS Series Inspection Machines

### **TECH & SW KNOW-HOW**

### **MACHINE LEARNING**

- NOK Pieces Classification by different defects.
- Self-Calibration with Master-Images (TEST SET)
- Correction on-line of Manufacturing conditions in connected Manufacturing machines.
- Operators Homologation in Machine Utilization.







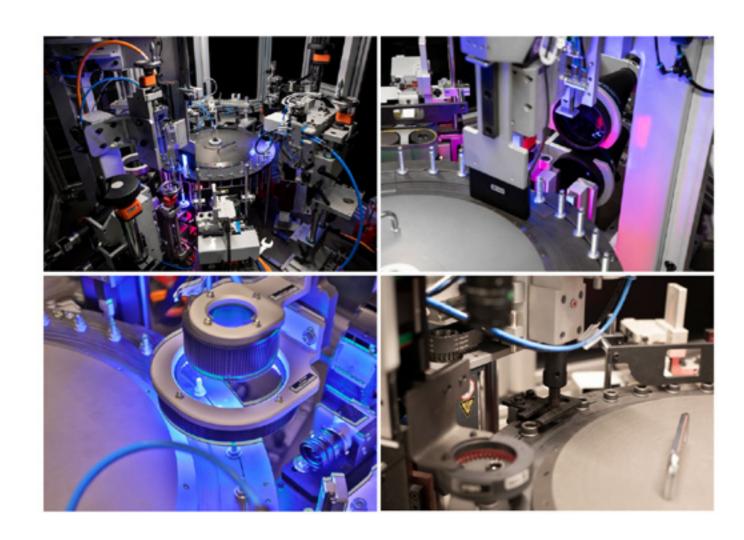
IRIS Series Inspection Machines

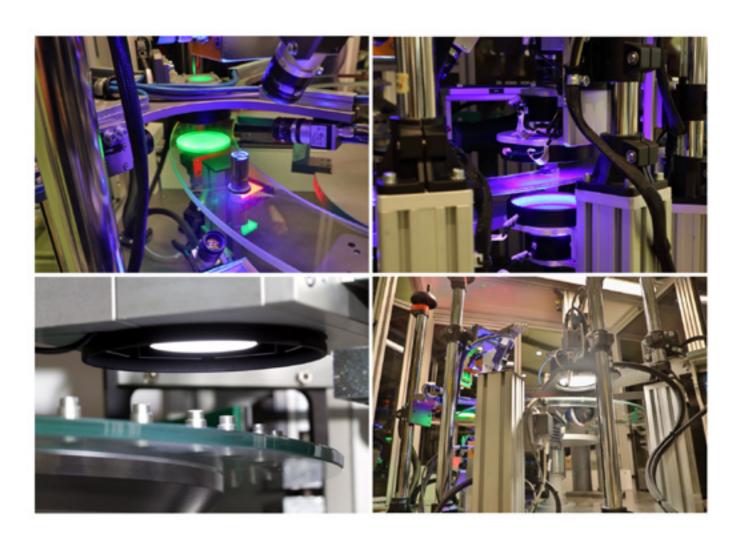
### **IRIS RT1**

- Metallic Rotating table.
- Top/lateral visión.
- Thread damage in 360o.
- Cracks with Eddy Current.
- Heat treatment with Eddy Current.
- Mechanical Recess control.
- Bearing Surface defects with Photometric.
- Bending inspection with visión.
- Progammable 2 NO OK outputs.

### **IRIS RT2**

- Glass Rotating table.
- Top/lateral visión (Back light).
- Top/bottom visión (Front light).
- Outer Thread damage (360o).
- Laser 3D Surface analysis.
- Photometric Surface defect analysis. Heat treatment with Eddy Current.
- Progammable 2 NO OK outputs.





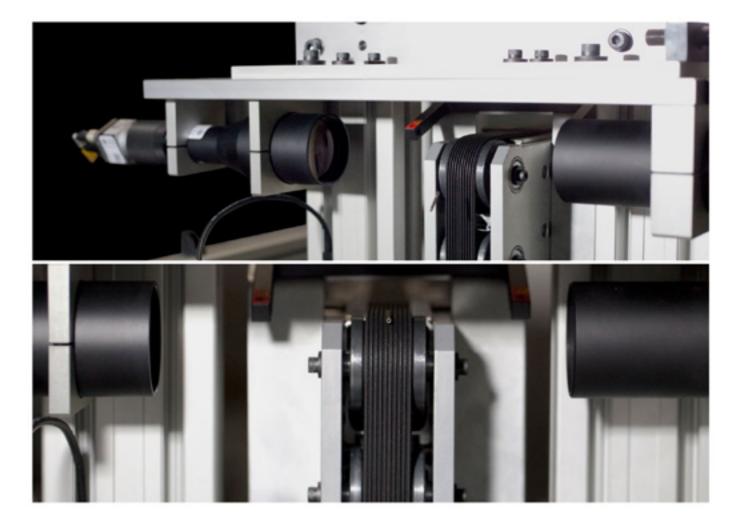
IRIS Series Inspection Machines

### **IRIS RT3**

- Gripper based rotary transfer (Index mode).
- Top/lateral visión (Back light).
- Top/bottom visión (Front light).
- Top/bottom Photometric (Surface defects).
- Lateral Photometric in 360o.
- Go /No Go mechanical inspection.
- Eddy current Inspections (Heat treatment/cracks).
- Others:
- Thread damage inspection/Rerolling Laser 3D Surface analysis
- Laser printing
- Loading/Unloading options
- Robot/mechanical feeders/....

### **IRIS LT1**

- Linear conveying.
- Top/lateral visión (Back light).
- Top/lateral visión (Front light).
- Heat treatment with Eddy Current.



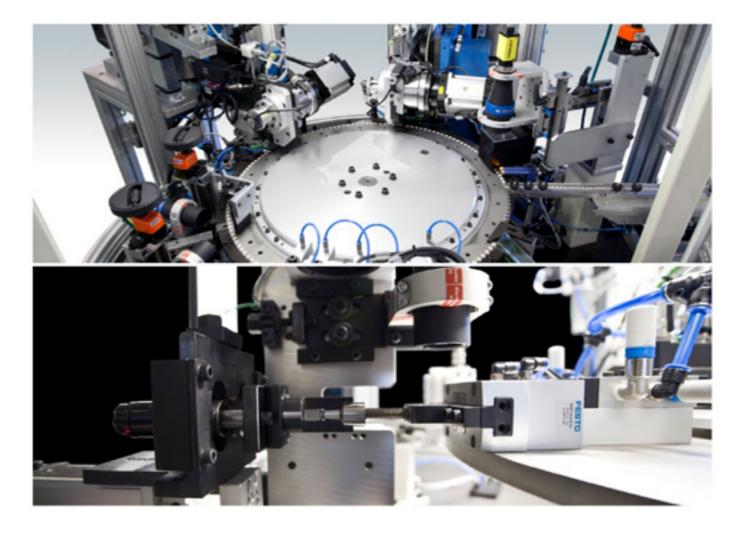
IRIS Series Inspection Machines

### **IRIS LT2**

- Gripper based linear transfer (Index mode).
- Top/lateral visión Bback light).
- Top/lateral visión (Front light).
- Top/bottom Photometric (Surface defects).
- Lateral Photometric in 360o.
- Go /No Go mechanical inspection.
- Eddy current Inspections (Heat treatment/cracks).
- Others
- Thread damage inspection/Rerolling Laser 3D Surface analysis
- Laser printing
- Loading/Unloading options
- Robot/mechanical feeders/....

### **OTHERS**

100% customized inspection machines. Adapted to the customer's needs with integrated IRIS family control technologies.



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