



RESET Final Conference

T-MASK

January 19, 2020

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T-MASK | Challenge



- Guarantee the supply of surgical face masks to the medical community and general public;
- Provide new local solutions for the production of surgical face masks;
- Create conditions for textile companies to step up their production or adapt to new areas of business;

➤ Contact the portuguese leader in textile machinery:



- Located in Oliveira São Mateus, V.N. Famalicão - Portugal
- More than 30 years of experience in the production of textile machinery
- World leader in the field of textile printing, digital textile printing and packaging
- Offers the most advanced tools and technologies in the area of engineering, design and product development

WE ARE **ROQ**

- Development of a machine to produce “in-line” and automatic, surgical masks according certification parameters to combat the global COVID-19 pandemic



Activities/Tasks	2020			
	apr	may	jun	jul
Project Management and Coordination				
Technical Coordination				
Financial and Administrative Coordination				
Preliminary studies and Technical Specifications				
Technological Surveillance				
Identification of Technical and Functional Requirements				
Technical Specification of the Mask Production Line				
Development of the Automatic Mask Production Line				
Research and Development of the constructive system for the Automatic Mask Production Line				
Research and Development of the automation system, IOT modules and data parameterization				
Preliminary integration of the modules				
Analysis and Reengineering Process				
Construction of Prototypes				
Construction of prototypes for validation of the solution in laboratorial environment (semi-industrial simulation)				
Tests and Validation				
Performance Evaluation of the Automatic Mask Production Machine				
Validation and Certification				
Promotion and Dissemination of Results				
Project Promotion and Dissemination of Results				

T-MASK | Specifications & Requirements



- Fully automatic production line
- Simple and intuitive control of the equipment
- Monitorization and control of production through adoption of IoT and i4.0 solutions
- Obtain high quality masks (Type 1 and Type 2) at low operation cost
 - Achieve performance and dimensional requirements for mask certification
- Masks up to 4 layers of TNT or polyester fabric
- Automated integration of nasal clip and earloop
- Continuous production up to 100 masks per minute
- Possibility of combination with specific module for automatic packing

1

▪ OVERLAPPING LAYERS

2

▪ MAKING THE PLEATS

3

▪ NASAL CLIP

4

▪ ULTRASONIC WELDING

5

▪ CUTTING

6

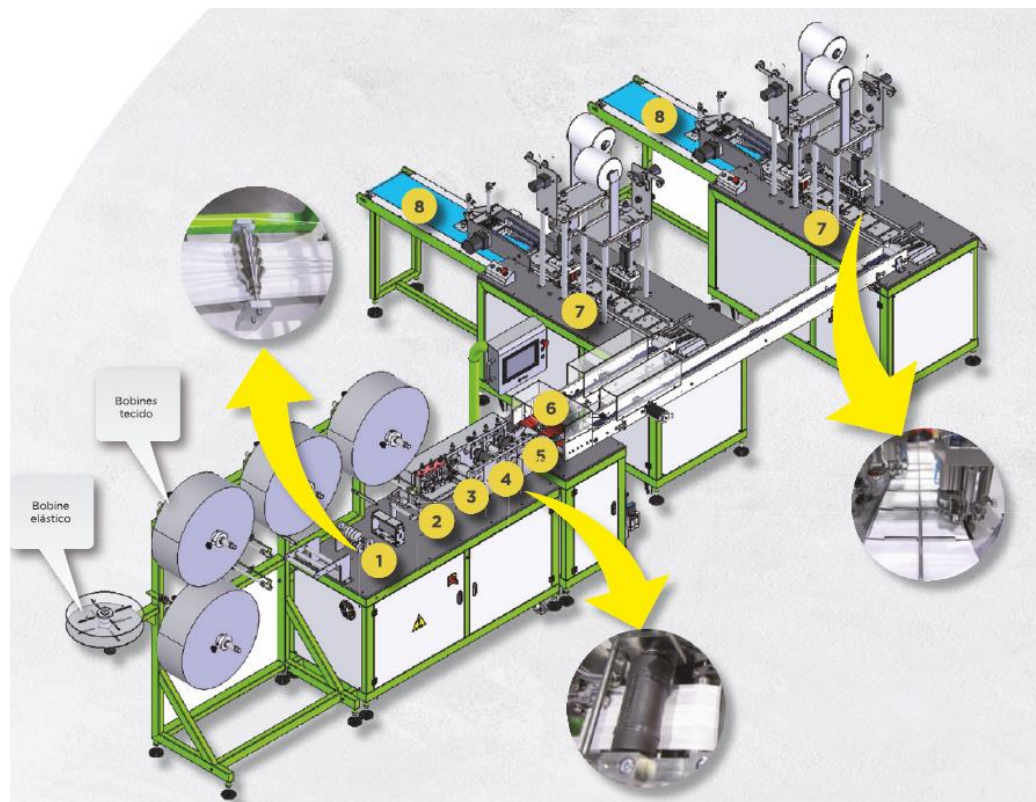
▪ DISTRIBUTION AND TRANSPORT

7

▪ EARLOOP PLACEMENT

8

▪ PILING UNIT





T-MASK | Mask Production Machine

1

OVERLAPPING LAYERS



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MAKING THE PLEATS



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NASAL CLIP



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PILING UNIT



CONTROL UNIT



CUTTING

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DISTRIBUTION AND TRANSPORT

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EARLOOP PLACEMENT

7





Full Video: <https://www.youtube.com/watch?v=KQfilDwM8xo>

- Social impact:
 - Helping the fight against Covid-19
- Economic impact:
 - 100% european product. Provides an easier solution for other companies to adapt their production or enter a new area of activity
- Marketing:
 - Strong dissemination of the project and the promoters in the media
- Portfolio:
 - New business area / New clients
- Sales:
 - Several machines already sold in Portugal and Spain

T-MASK



Start Date 30/03/2020

(4 months)

Conclusion Date 31/07/2020

Total Eligible Cost € 265.927,88

Financial Suport FEDER € 212.742,30



Cofinanciado por:



UNIÃO EUROPEIA
Fundo Europeu
de Desenvolvimento Regional



Thank You

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