

LiSEC

CREATING VISIONS. PROVIDING SOLUTIONS.



ing. Massimo De Feo
Denis Della Rosa

LiSEC
Progetto G-UNI-Scan

Content

1. **About LiSEC**
2. **Problema e concetto di qualità**
3. **Tecnologia scanner**
4. **Il progetto**

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Progetto G-UNI-Scan About LiSEC

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LiSEC
System Competence

Innovation/Technology | Machinery | Software | Services | Operational know-how

Glass expertise in your vicinity

- » [LiSEC ITALIA S.R.L., Capriate San Gervasio \(BG\) / Italy](#)
- » [LiSEC SOFTWARE ITALIA, Olmi - San Biagio Di Callalta \(TV\) / Italy](#)

Locations throughout the world

We offer full-service around the globe for our customers.

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Glasstech Asia 2014:

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ABOUT LiSEC

LiSEC is an internationally active company offering comprehensive solutions with regard to the production and refinement of flat glass. With more than 1,500 employees LiSEC is worldwide leading in solutions working with flat glass and sets standards in quality and technology. Our worldwide presence with more than 20 affiliated companies and agencies facilitates the quick implementation of our projects including the necessary supervision conducted by our specialists on-site. Our customers can rely on our consistent and trustworthy approach and as a consequence will have secured their investments long term.

We provide a comprehensive portfolio of **Machines**, **Software** and **Services**. But LiSEC is more.

Consulting & Planning

Products and processes, employees and market, present and future. Being the expert for flat glass, we take all parameters into account. We advise you and plan for you meticulously, considering your requirements at every stage. And it all comes down to

Training & Process Optimization

Utilize the full potential of your equipment and software and you will maximize your profits. Our experienced experts will train your employees. We will also optimize all your manufacturing processes spanning your entire production.

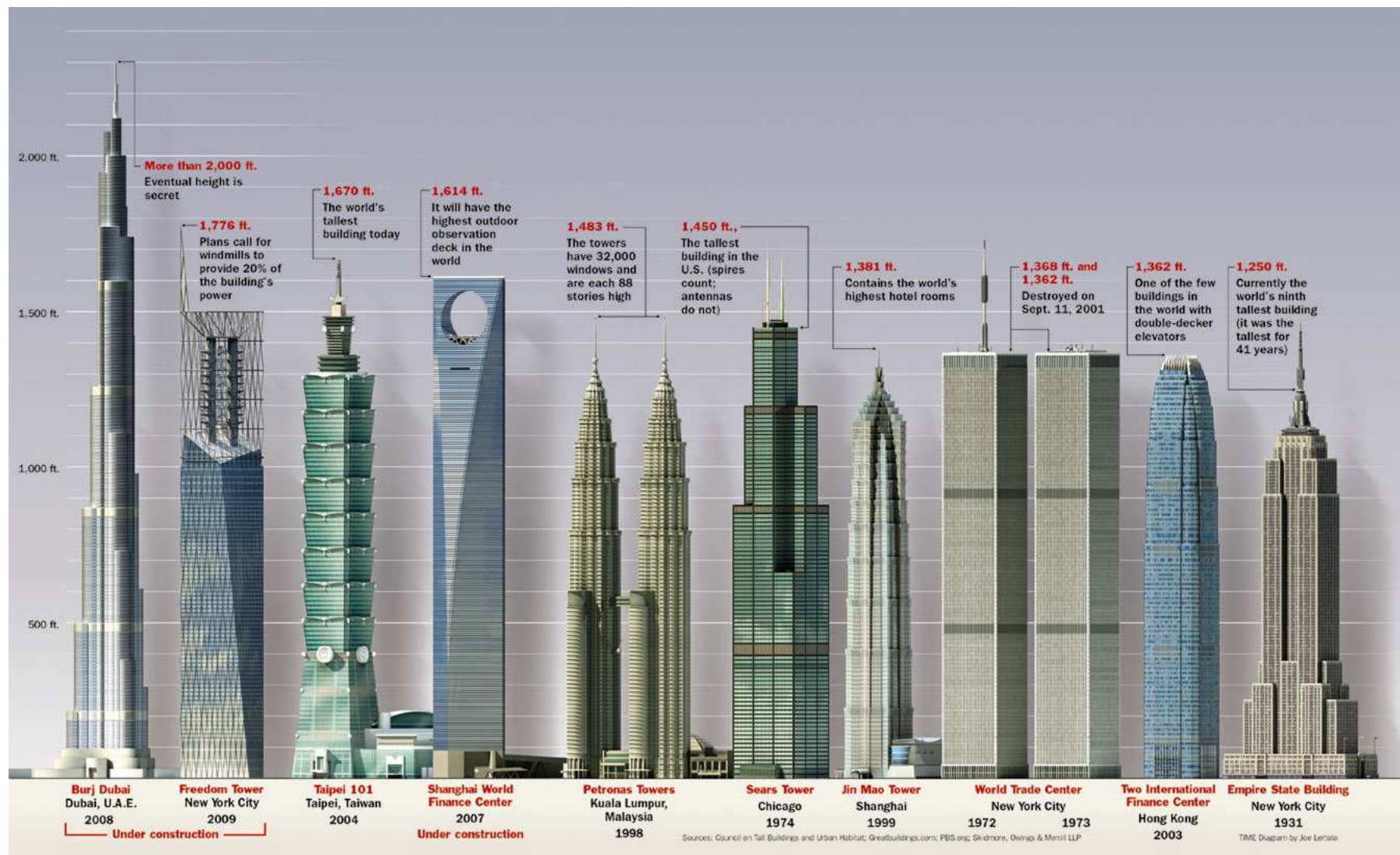
Progetto G-UNI-Scan
Settore di competenza

LiSEC



Progetto G-UNI-Scan Settore di competenza

LiSEC





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La qualità

➤ Riduzione dei difetti

- Controllo di ogni singolo vetro durante il processo produttivo

➤ Qualità per il cliente

- Controllo della produzione
- Report di qualità integrati

➤ Ridurre inutili cicli produttivi

- I vetri rovinati o sporchi sono riconosciuti prima del passo di produzione successivo



Riduzione Costi:

➤ Costo dei reclami

- Riparazioni e installazioni sono evitate

➤ Costi di produzione

- I pannelli rovinati sono riconosciuti automaticamente, subito, prima e con estrema precisione

➤ Costi operativi e di manutenzione

- Riduzione dei costi operativi e di manutenzione



Content

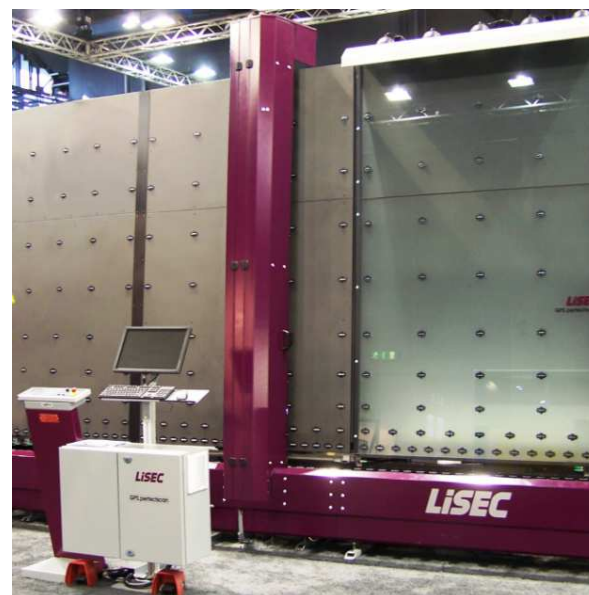
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Progetto G-UNI-Scan Tecnologia scanner

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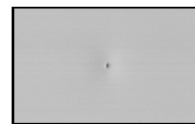
Tipologie di difetti:

- Bolle

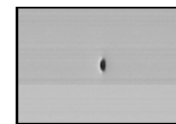
0,40 mm



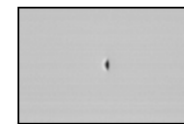
0,30mm



0,5 mm

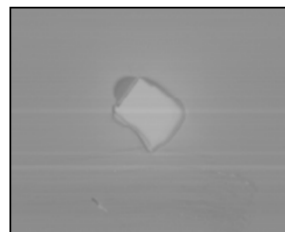


0,35 mm

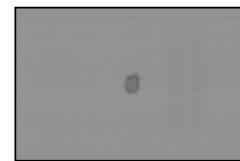


- Difetti di Coating

8 mm



2 mm



1,6 mm

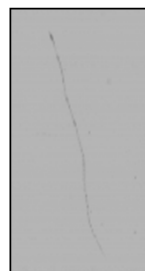


6 mm

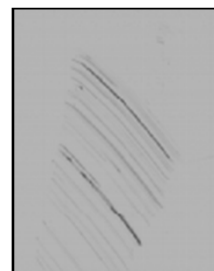


- Graffi

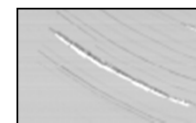
25 mm



15 mm



10 mm



18 mm



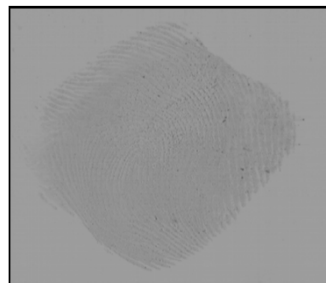
14x3 mm



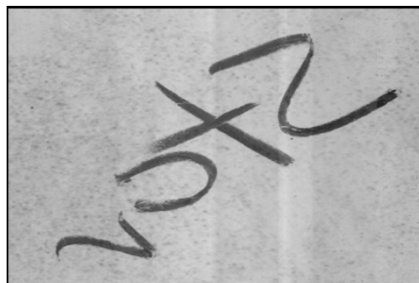
Tipologie di difetti:

- Sporco

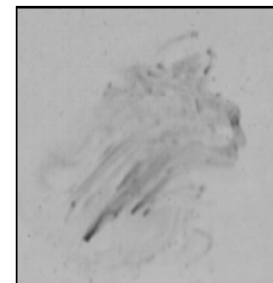
30 x30mm



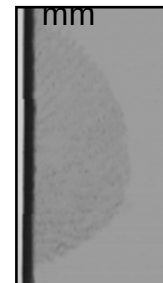
100x60 mm



40x50 mm



20x10
mm

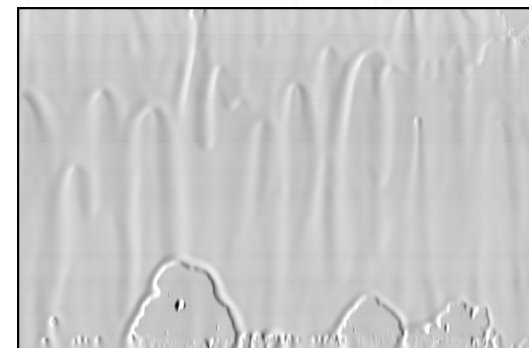
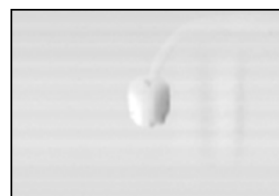


- 2D-Barcode /
Acqua

15x15 mm

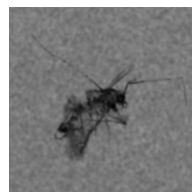


6x6 mm



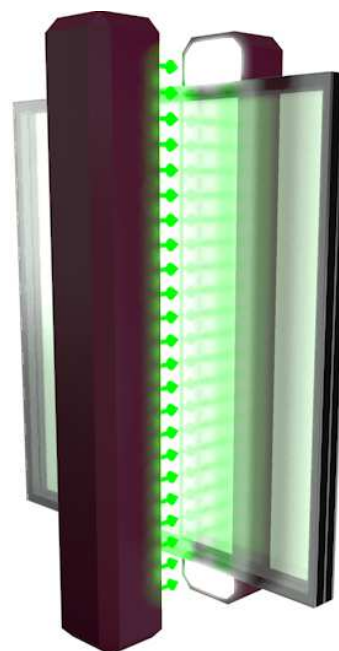
Insetti

- Altro/ inclusioni



➤ **Tecnologia Scanner**

- Visione Telecentrica
- Scansione continua
- Lunghezza variabile
- Vetro Multilayer
(IG glass, laminated glass)
- Spessore fino a 100 mm
- Velocità fino a 60 m/min
- Precisione 200 dpi



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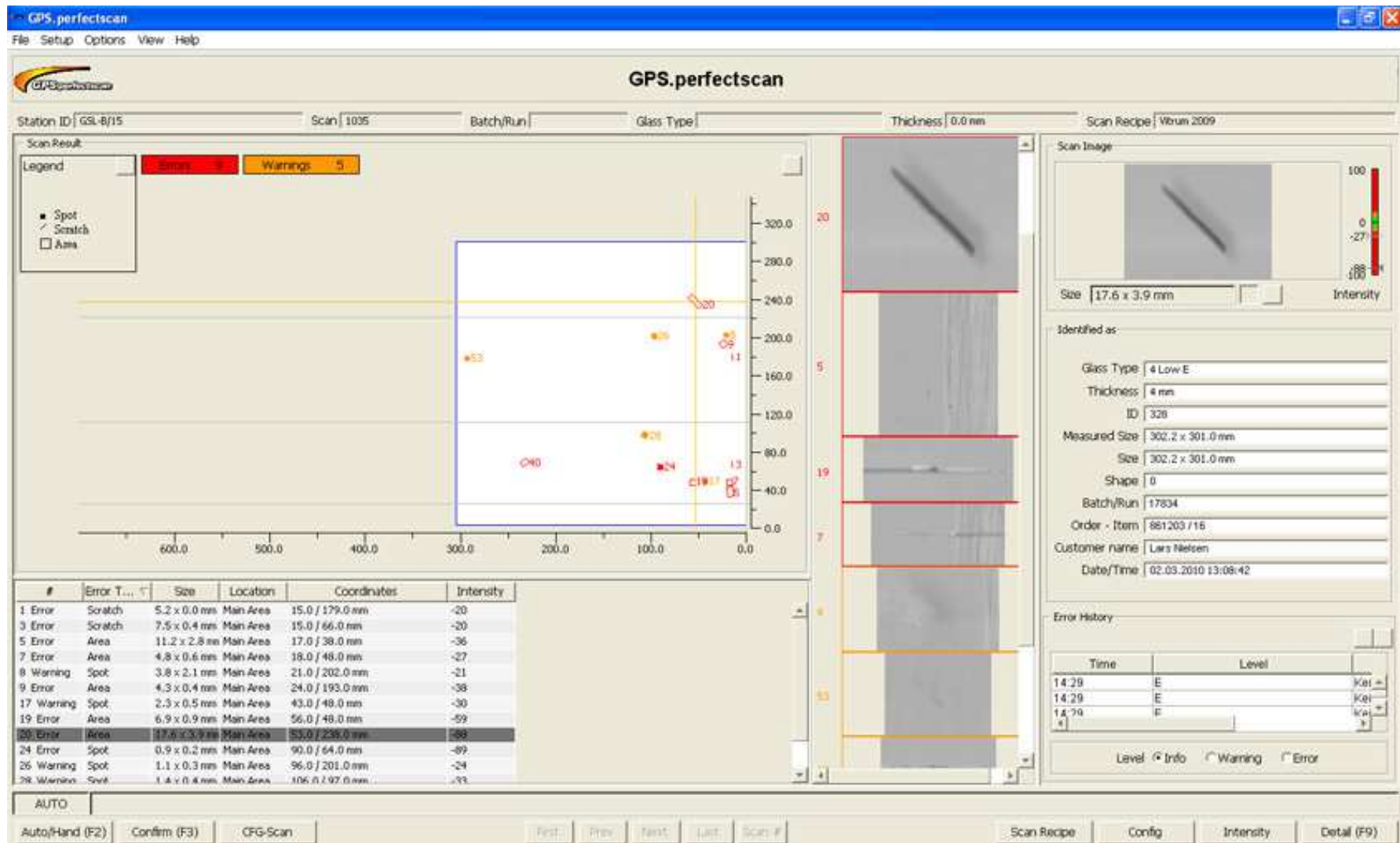
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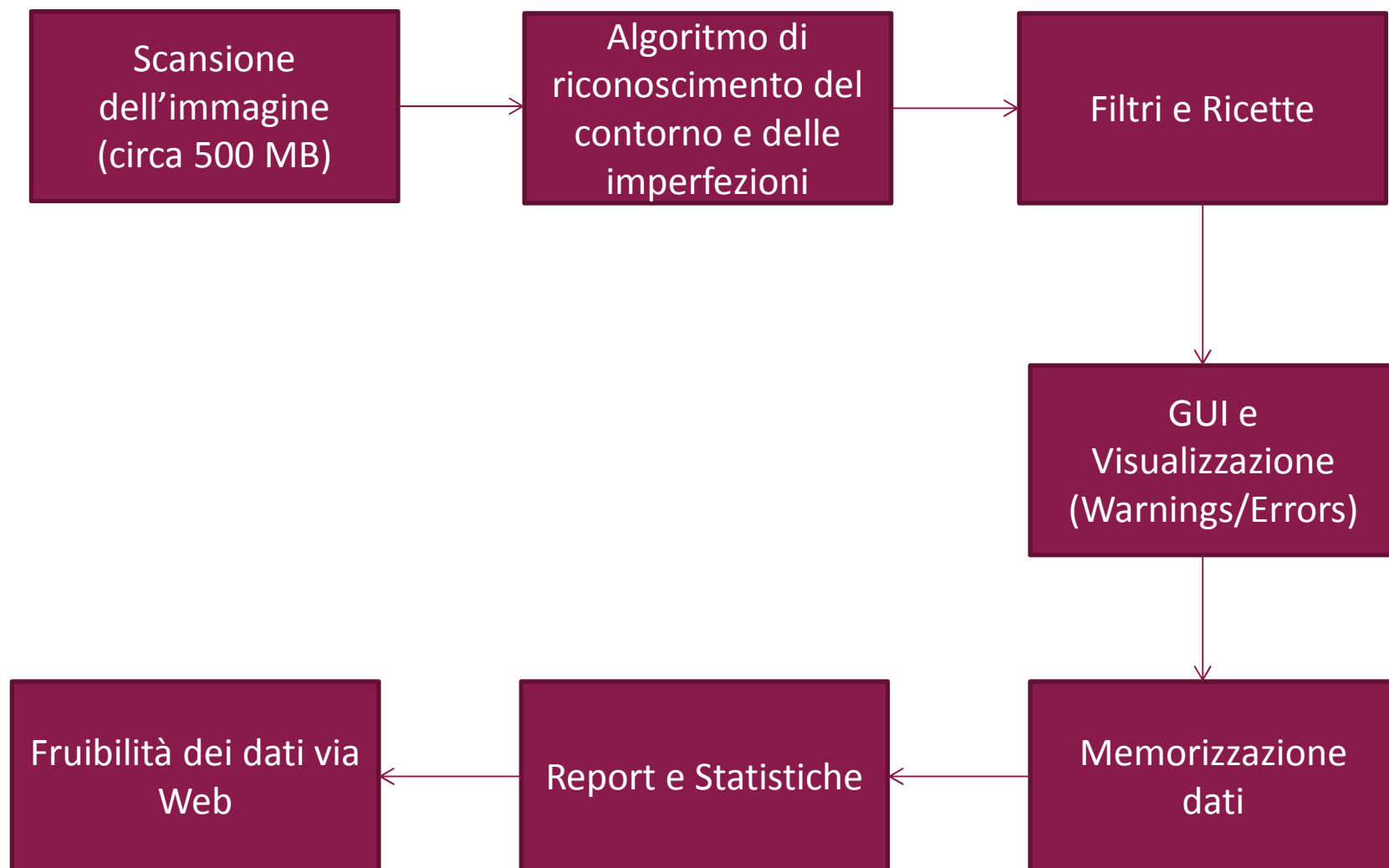
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Progetto G-UNI-Scan

Descrizione del progetto

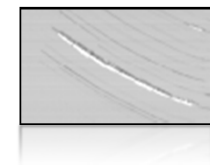
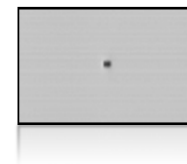
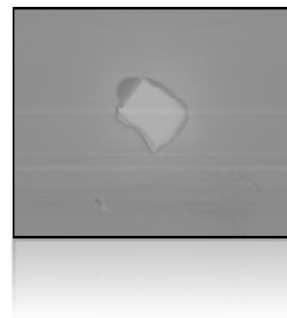
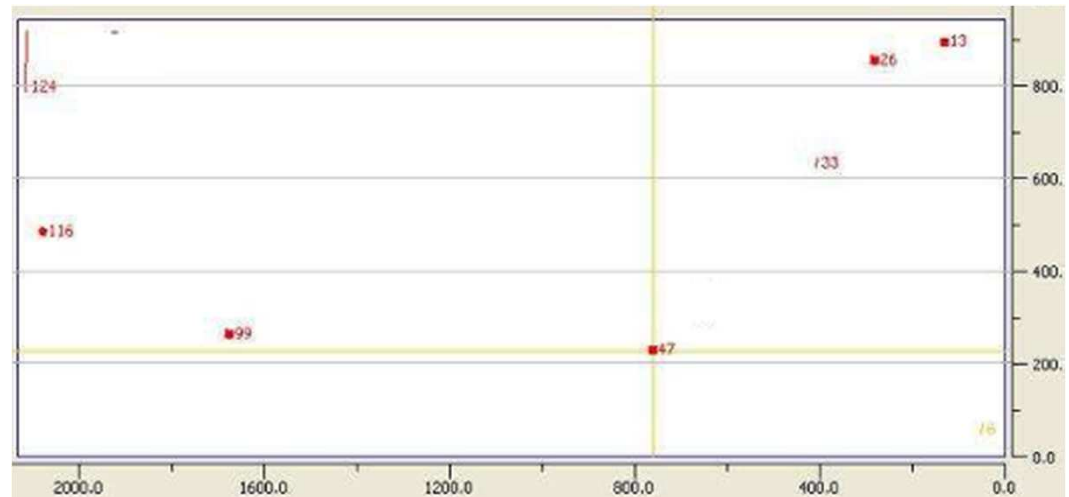
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Analisi immagine

- Analisi in tempo reale
- Intuitiva
- Accesso veloce al dettaglio
- Distinzione tra difetti e errori
- Priorità dei difetti

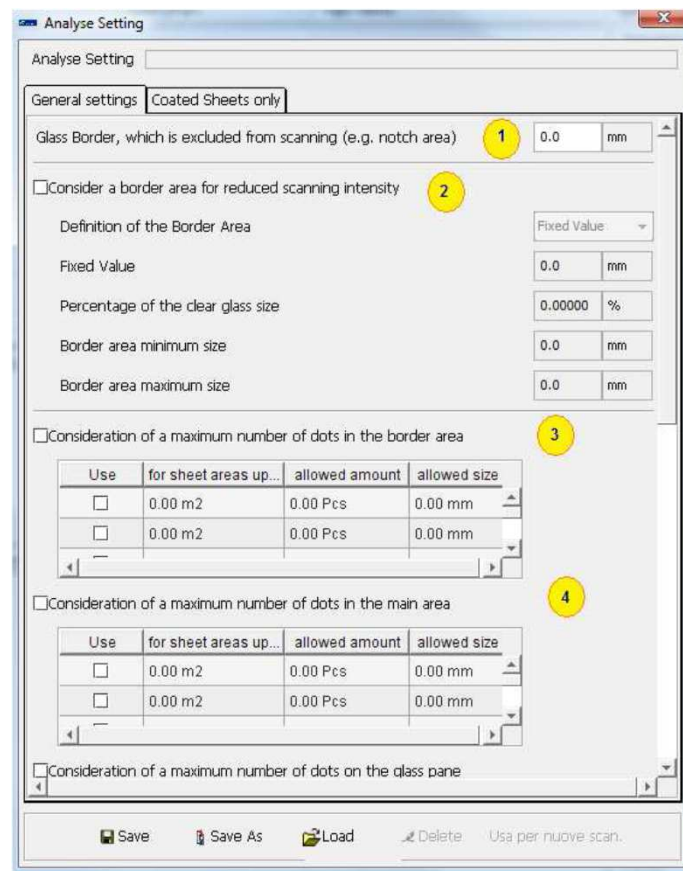


Filtri e Ricette

- Tipologia di vetro
- Tipologia di produzione
- Tipologia di difetto
- Normative in vigore

Parametri di qualità

- Intensità del difetto
- Dimensione del difetto
- Colore e forma del difetto



The screenshot shows the 'Analyse Setting' dialog box with the 'General settings' tab selected. The 'Coated Sheets only' sub-tab is active. The following settings are highlighted with yellow circles:

- 1**: Glass Border, which is excluded from scanning (e.g. notch area) set to 0.0 mm.
- 2**: ☐ Consider a border area for reduced scanning intensity.
- 3**: ☐ Consideration of a maximum number of dots in the border area.
- 4**: ☐ Consideration of a maximum number of dots in the main area.

Below the highlighted settings, there are two tables for defining the border and main area parameters. The first table is for the border area and the second is for the main area. Both tables have columns for 'Use', 'for sheet areas up...', 'allowed amount', and 'allowed size'.

Use	for sheet areas up...	allowed amount	allowed size
☐	0.00 m2	0.00 Pcs	0.00 mm
☐	0.00 m2	0.00 Pcs	0.00 mm

Use	for sheet areas up...	allowed amount	allowed size
☐	0.00 m2	0.00 Pcs	0.00 mm
☐	0.00 m2	0.00 Pcs	0.00 mm

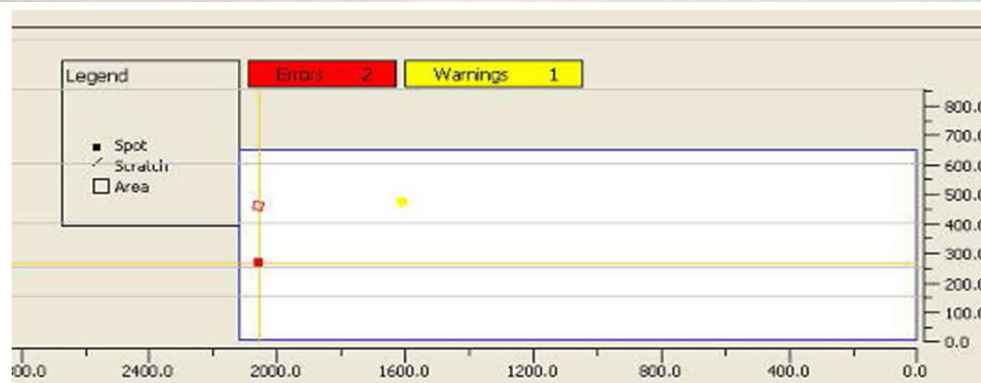
At the bottom of the dialog, there are buttons for 'Save', 'Save As', 'Load', and 'Delete', along with a checkbox for 'Usa per nuove scan...'.

Progetto G-UNI-Scan

Descrizione del progetto

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Avvisi di errore



Progetto G-UNI-Scan

Descrizione del progetto



Reportistica e statistiche

➤ Dati della materia prima

- Tipo vetro
- Ricetta usata

➤ Informaizioni di produzione

- Data, ora e risultato della scansione

➤ Informazioni qualità

- Risultato della scansione
- Misurazione delle dimensioni

Report No.:	Quality Report	Winterglas GmbH Betriebsstrasse 14 3552 Leiben Tel: +43-2752-700-80-0 Fax: +43-2752-700-80-80 office@winterglas.at
Date:	Material identification and traceability according ISO 9001	
Page 1 of 3		
Customer: Marc Miller	Order No.: 61412 Item: 1	

Report No.:	Quality Report	Winterglas GmbH Betriebsstrasse 14 3552 Leiben Tel: +43-2752-700-80-0 Fax: +43-2752-700-80-80 office@winterglas.at
Date:	Material identification and traceability according ISO 9001	
Page 2 of 3		
Customer: Marc Miller	Order No.: 61412 Item: 1 Batch: 2650/2654 Barcode: 586211 Delivery Date: 11.09.2011	

Report No.:	Quality Report	Winterglas GmbH Betriebsstrasse 14 3552 Leiben Tel: +43-2752-700-80-0 Fax: +43-2752-700-80-80 office@winterglas.at
Date:	Material identification and traceability according ISO 9001	
Page 3 of 3		
Customer: Marc Miller	Order No.: 61412 Item: 1 Batch: 2650/2654 Barcode: 586211 Delivery Date: 11.09.2011	

Glass	Amount	Type
Glass Pane 1	1	Float
Glass Pane 2	1	TVG
Glass Pane 3	1	Float

Spacer	Material	Thickness
Frame 1	Alu	16 mm
Frame 2	Alu	16 mm

Filling	Argon
Sealant	2 comp.

Cutting	Batch
Glass Pane 1	2654
Glass Pane 2	2650
Glass Pane 3	2654

Grinding	
Glass Pane 2	2650

Tempering	
Glass Pane 2	2650

Bending	
Frame 1	2654
Frame 2	2654

DGU Assembling	
	2654

Packing	
	2654

Delivery	
	2654

Glass Pane 1: OK

Glass Pane 2: OK

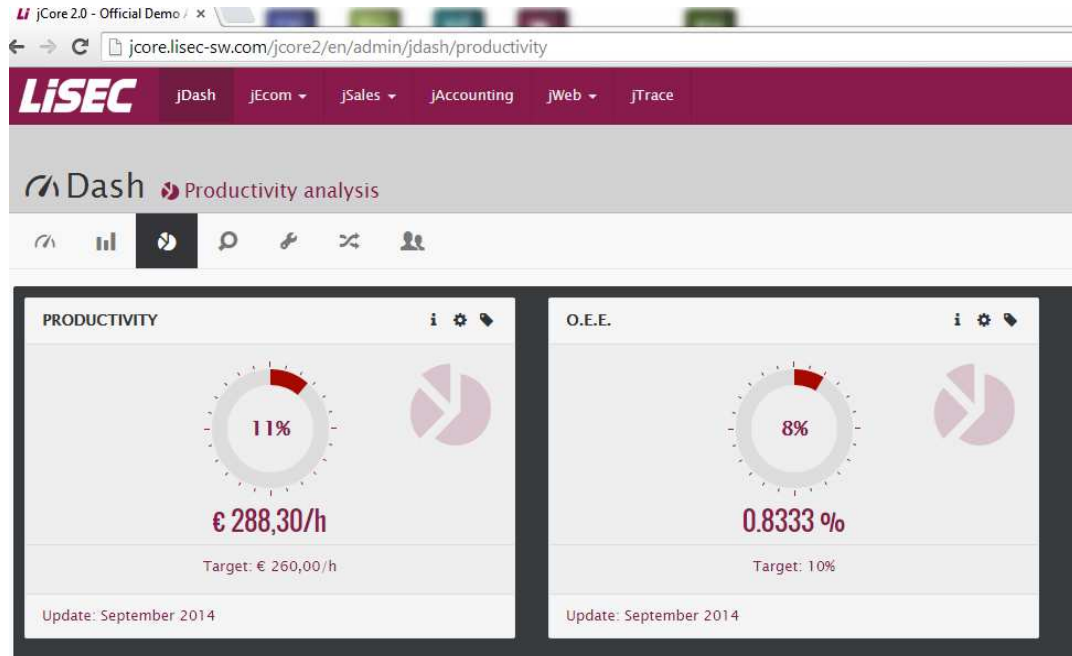
Glass Pane 3: 2 Warnings

General Remarks:

Additional Technical Data				
Calculated U-Value	0.6 W/m² K			
Light Transmission	73%			

Manual Quality Check				
Item	Type of Control	Test ID	Date	Passed
Cutting Dimension	EN 12150-2	5684	10.05.2011	✓
TVG Fracture Pattern	EN 1883	6394	10.05.2011	✓
Butyl Application	EN 1279-6	5677	10.05.2011	✓
Dessicant in drying chamber	EN 1279-6	2247	10.05.2011	✓
Charge Reports PUP/S/Silikon	VO 305/2011	6274	10.05.2011	✓
Gas Filling Level	EN 1279-6	1584	10.05.2011	✓

Accesso dati dal Web



Tutte le cose sono difficili prima
di diventare facili

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Automation