



EXCAL²

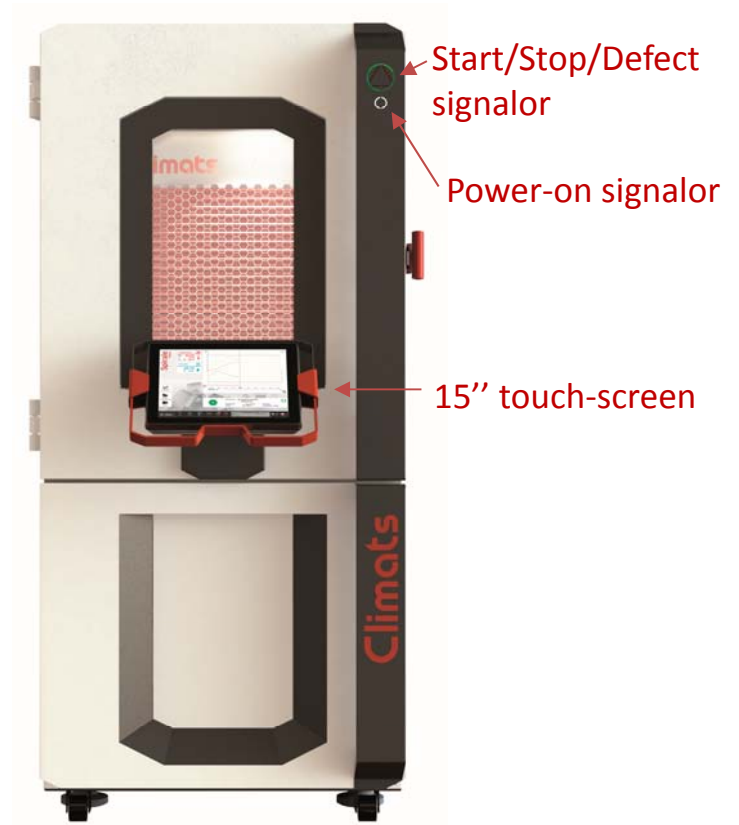


— 2018/2019

Redesigned ergonomics

Ergonomic and ease of use

- ▶ the 140l et 220l chambers are designed for standard door clearances (<800mm)
- As standard, chamber on casters with viewing window



Redesigned ergonomics

Ergonomic and ease of use

- ▶ Supplies are centralized and identified at the back of the chamber
- Dedicated and protected storage area for the capacitive probe

100 mm portholes

Capacitive probe storage area



INNOVATIONS

- ▶ • **F-GAS ready.** Use of R449A gas (GWP=1 397). Reduction of leakage checks
- **New aeraulics**
Double-airflow ventilation to ensure natural homogeneity
- Design suitable for complex tests of IEC 60068-2-30 and IEC 600-68-2-38 type



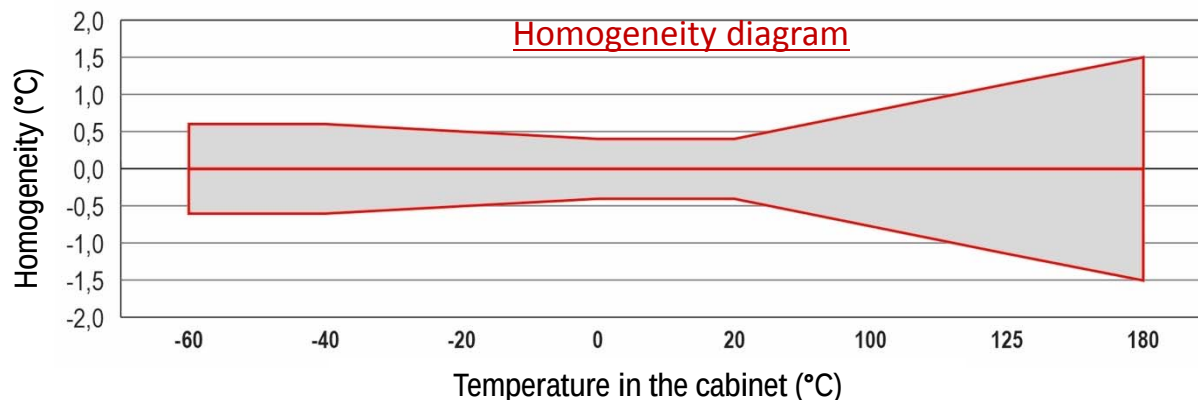
WIDE AND HIGH-PERFORMANCE RANGE



- 
- Temperature range : -85°C to +180°C
as an option : extension + 200°C, +250°C and up to -90°C
 - 8 test volumes : 140l, 220l, 400l, 540l, 770l, 1000l, 1400l & 1800l.
 - Transition speed : up to 25°C/min

THERMAL TESTS & HOMOGENEITY DIAGRAM

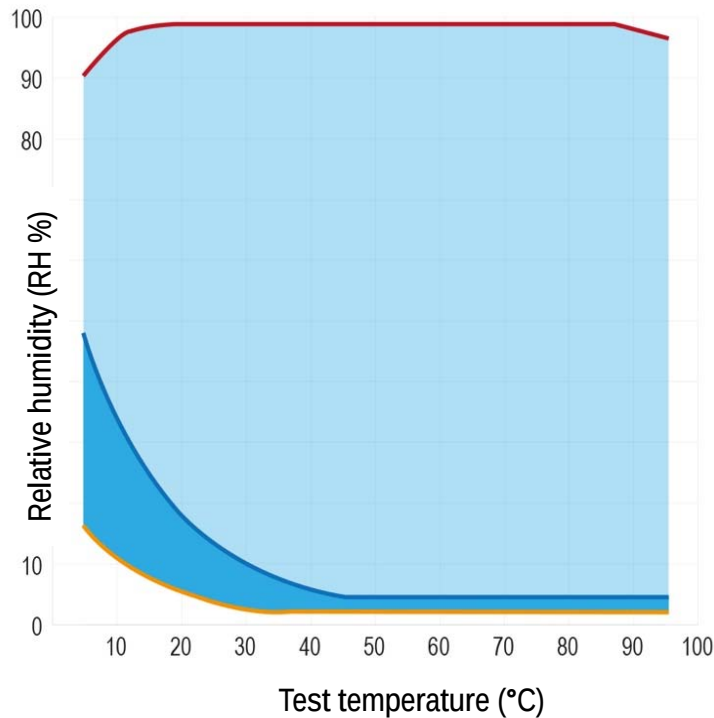
- ▶ • Temperature regulation stability : $\pm 0,1^{\circ}\text{C}$ to $\pm 0,3^{\circ}\text{C}$
- Temperature homogeneity in the cabinet, up to $+180^{\circ}\text{C}$: $\pm 0,4^{\circ}\text{C}$ to $\pm 1,5^{\circ}\text{C}$ (outside measurement uncertainties)
- Temperature gradient up to $+180^{\circ}\text{C}$ according to IEC 60068-3-5 or JJF1101 : $\leq 2^{\circ}\text{C}$



CLIMATIC TESTS & HUMIDITY DIAGRAM

- ▶ • Temperature range : +10°C to +95°C
- Dew temperature range : -5°C to +95°C
- Relative humidity range 5%HR to 98%HR, for temperature from +10°C to +95°C
- Relative humidity regulation stability : $\pm 2\%$ HR
- Maximum humidification water consumption : <2l/h

CLIMATIC TESTS & HUMIDITY DIAGRAM



- Limit with dew point range at +95°C
- Limit with dew point range at -5°C
- Limit with cold cascade and/or dryer option
- Chamber standard operating range
- Extended of the chamber operating range with the cold cascade and/or dryer option

HARDWARE

Ergonomic, reliability and ease of use

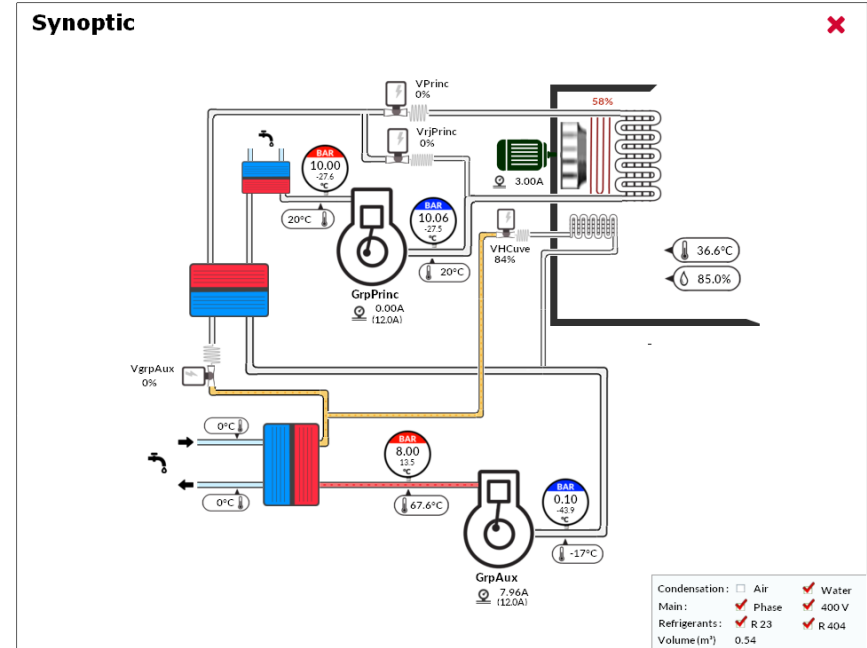
- ▶ • 15'' touch-screen Panel PC
- SSD 128Go memory
- Multipoint capacitive slab
- Windows 7
- 2 USB and network connectors in the front



Maintenance and monitoring

Complete and fast analysis

- ▶ • Circuit analysis > **Operating synopsis**
- **Real time recording and storage**
- Auto-check mode > **Autotest**
- **Analysis assistance** : error messages
- **Remote assistance**

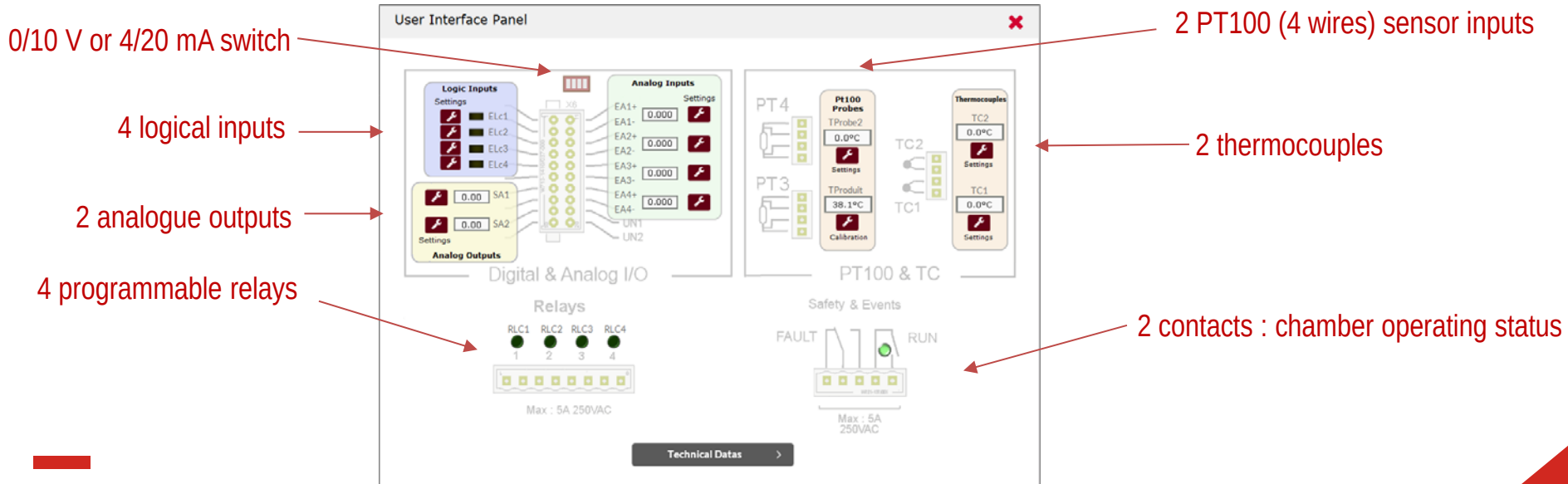


Operating synopsis : real time monitoring of your equipment.

User Interface Panel

Centralized connexions

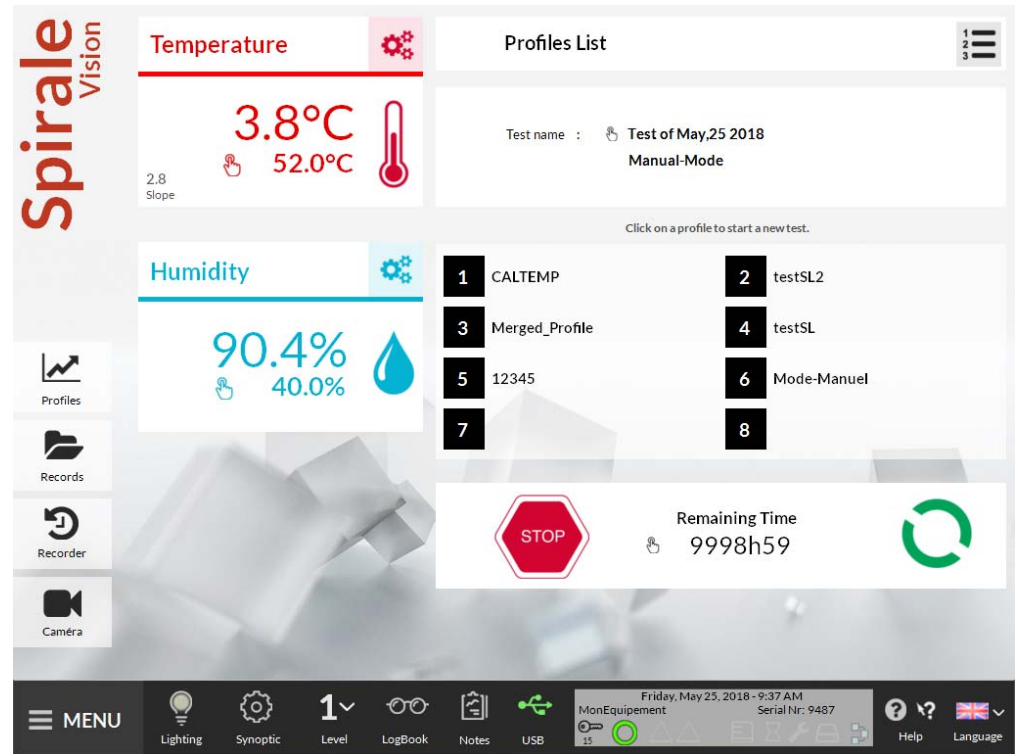
- ▶ **EXCAL** is equipped with an User Interface Panel that gathers, in one place, a complete set of connectors with an easy access :



SPIRALE VISION

Intuitive control

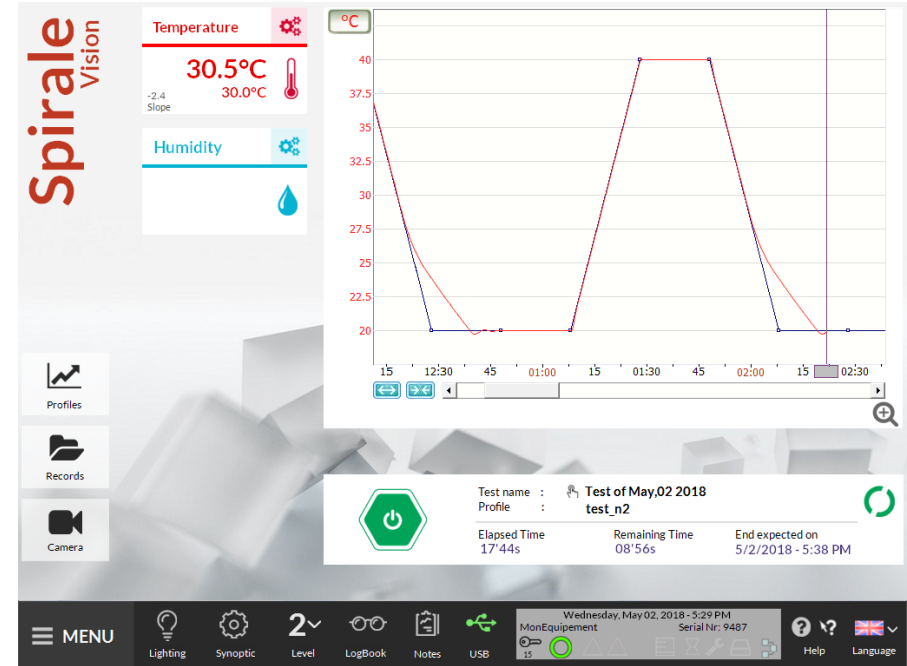
- ▶ 3 access interfaces :
Production,
Laboratory,
Advanced
- Status indicator
- Remote control via the network



Production mode : a single key to start and archive your tests

SPIRALE VISION

- ▶ Customizable home screen (logo and wallpaper)
- Delayed tests start / end
- Email sent on alarm or test stop
- External communication protocol (Ethernet/USB/RS232)
- Alarms display

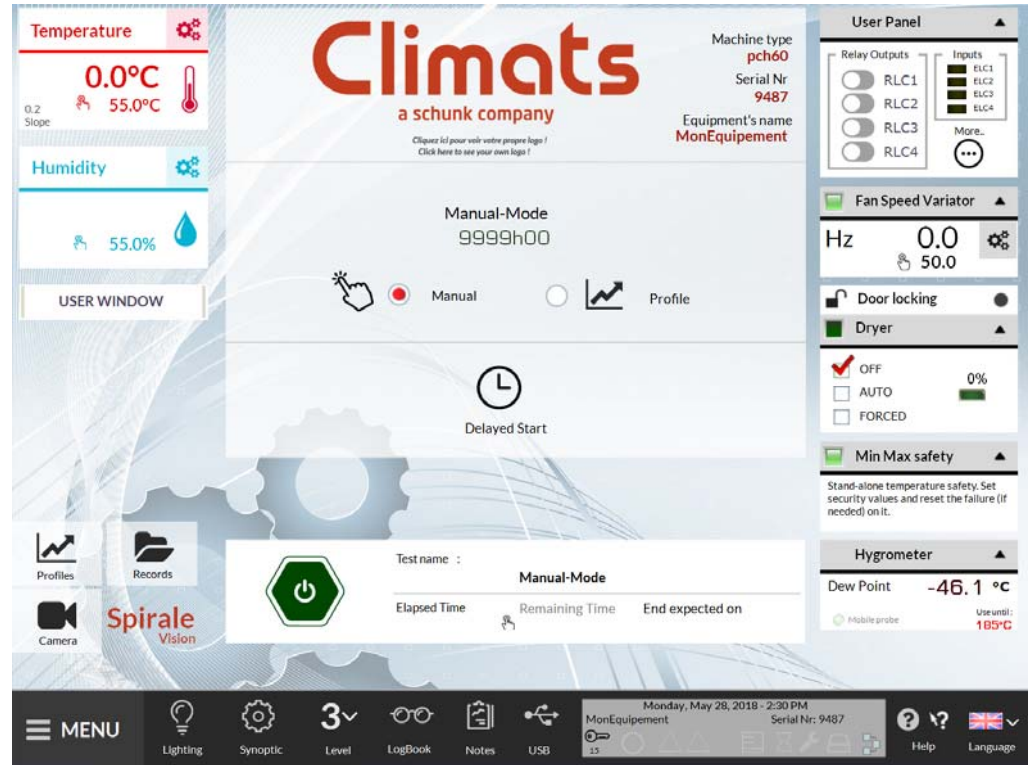


Laboratory mode : Freely select a programme and monitor it while running using the CycleWin recorder

SPIRALE VISION

Advanced mode :

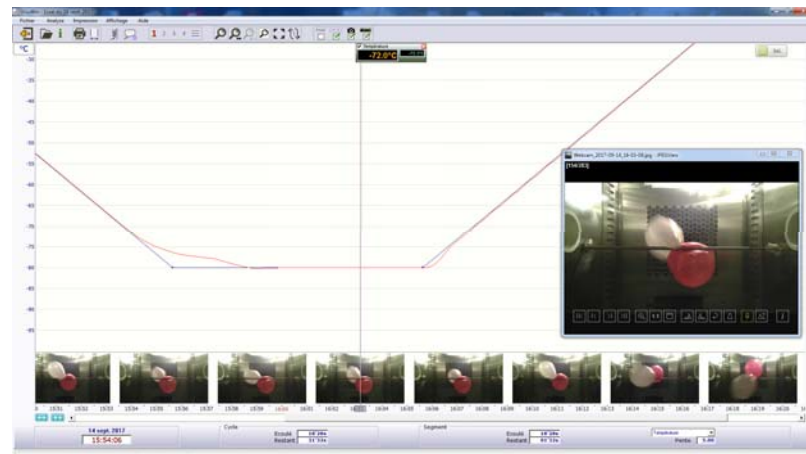
Enrich your test experience by additional extensions for measurements and customized automatisms.



SPIRALE *VISION*

CYCLEWIN, recorder :

- ▶ • **Monitoring** of the test in progress and management of the running profile
- **Real time display of the test cycle**
- **Recording of photos provided by and external camera & real time viewing**
- Multi points graphic management
- Comments insertion
- Use in office mode from the work station

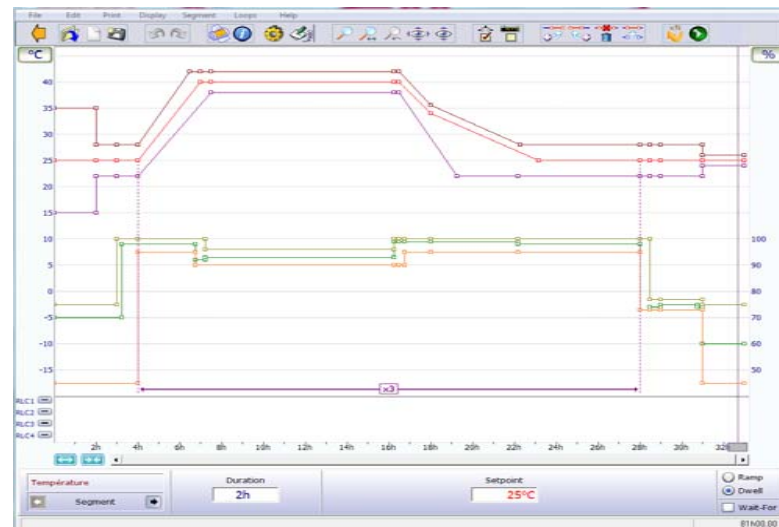


CYCLEWIN : Example of photos sequence recording
Perfect tests traceability

SPIRALE *VISION*

PROGWIN, profile editor

- ▶ Powerful functions such as :
 - Viewing of the profile in « Run » mode (loops execution)
 - Channels asynchronous profile edition
 - Profile models organisation
 - "Wait-For" function to ensure the respect of the dwell times
 - Time-based comments



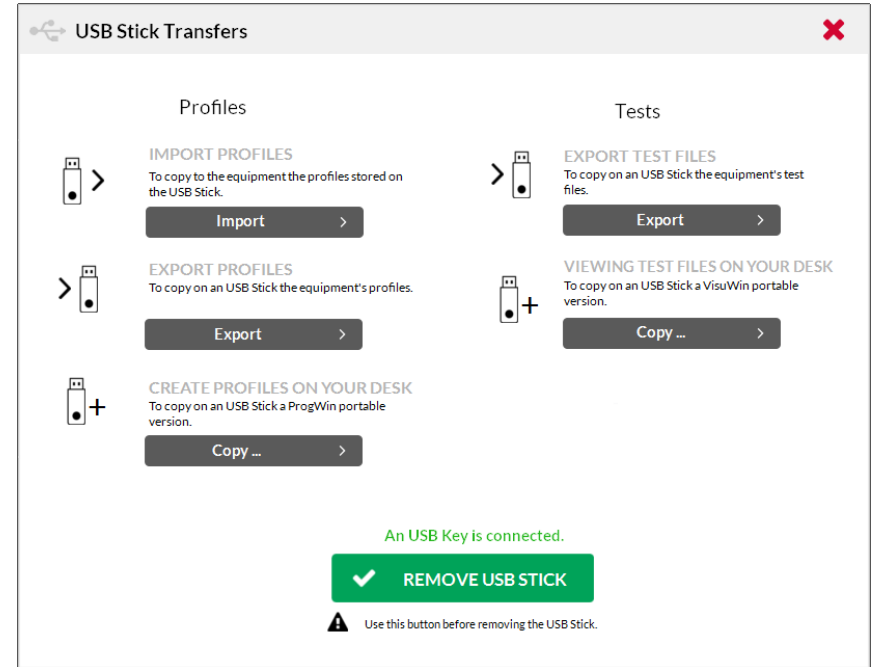
PROGWIN : profile example for IEC 60068-2-30

Quick and easy tests creation

SPIRALE *VISION*

VISUWIN, test manager

- ▶ Accurate and easy traceability :
 - Use of the test photos
 - **Tests analyses** : speed, homogeneity, mini/maxi/average
 - Addition of comments
 - Test library
 - Exports (.xls, .csv,...)
 - Test reports edition
 - Profiles and tests transfert by USB drive



USB export assistant : your tests can be used directly