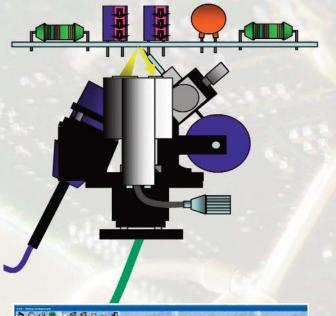




## FIREFLY LINE

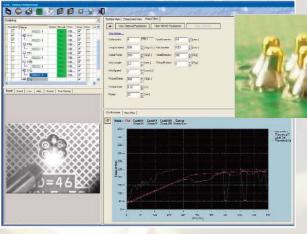
Laser selective soldering systems

Flexible and always monitored process, the Firefly Line is the answer to the manufacturing needs, through the clean and efficient laser technology. The modularity of Firefly systems provides an enhanced integration on the existing production lines: both top and bottom soldering modules are available depending on the production requirements.



#### THE ADVANTAGES OF LASER

Supplying energy through a laser source allows point to point adjustment of the power needed for soldering; the lack of thermal inertia of the laser combined with real-time temperature readings, enable the dynamic correction of the thermal profile. The ability to apply all of the energy in a single point makes this technology applicable in situations where it is not possible to heat the whole board or where there are problems generated by reduced accessibility. Changing from "Lead" to "Lead-Free" soldering is simply a matter of changing a spool of solder wire, and the soldering process is clean, eliminating the costs and logistics of cleaning the boards and handling residual waste. Moreover, the power consumption of the Firefly is extremely low, compared to other types of technologies, and the system is ready to solder as soon as is switched on, since it requires no preheating.



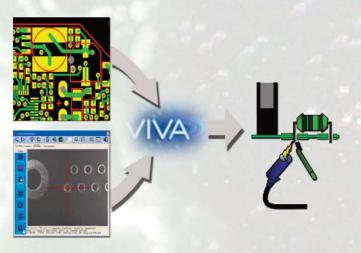
# A DEDICATED SOLUTION FOR THE SPECIFIC APPLICATION

The Firefly line, created and designed to optimize flexibility and automation, includes dedicated solutions for specific requirements, such as an external pre-heating unit, fully controlled by the system software, and internal hot air nozzles on both sides of the boards. In addition, the systems are available in two configurations for top or bottom side soldering.



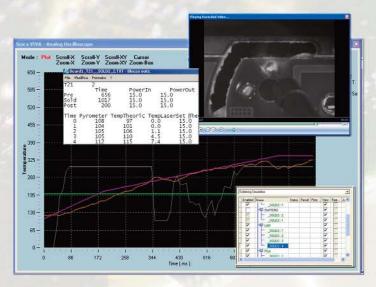
The experience achieved in the flying probe test systems, enabled the successful integration of the VIVA proprietary software with a complete management of motion of the soldering alloy distribution, as well as the management of power transfer. A line of systems capable of resolving the issues of process automation is born.

#### PROGRAM CREATION



The points to be soldered can be acquired automatically by the VIVA software, due to more than 40 CAD data import tools; in cases where CAD data is unavailable, the integrated vision system enables the visual acquisition of the points to be soldered, giving the user maximum flexibility. Once the board information has been acquired, VIVA generates the soldering program, optimized on the basis of the geometrical characteristics and dimensions of the points to be soldered. This program is immediately executable, and it is also completely modifiable, allowing the user to vary any soldering parameter as may be necessary to meet the specific requirement.

#### **PROCESS TRACEABILITY**

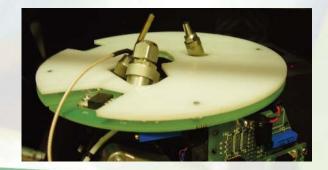


The Firefly system software includes the automatic visual acquisition of the soldering process of each point, as well as the storage of the corresponding thermal profile, allowing total process traceability and providing an unparalled debug tool through the collection of objective data, usable to optimize the soldering process. This is a valuable feature in any manufacturing process, and makes the Firefly system particularly applicable in the autronics, should be Aeronautics, telecommunications and medical sectors.

### VIVA INTEGRATED PLATFORM

#### **VIVA: A GROWING SOFTWARE**

Since the Firefly is included in Seica's standard VIP software platform, its integrated VIVA software benefits from the synergy created by all new developments of the entire Seica platform, ensuring continuous improvements to satisfy constantly changing technological and manufacturing requirements. By means of its intuitive graphical interface, the software guides the user through the steps required to import data, create and optimize the soldering parameters, allowing simple, direct control of all the aspects connected to the soldering process. With perfect synergy between hardware and software, the Firefly can dynamically adapt to the variability of the manufacturing process.





#### **HIGH AND LOW VOLUMES**

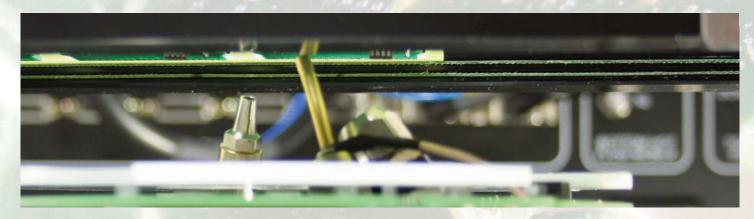
Due to its versatility and flexibility, the Firefly is not only applicable in high volume production lines, enabling continuous monitoring of process quality, but is also a good tool in situations characterized by continuous product changeovers, even when mixed soldering "Lead" or "Lead-free" is needed.



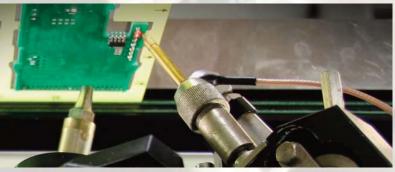
In-line



Stand alone







#### **SEICA WORLDWIDE**



#### **SEICA SpA**

via Kennedy 24 10019 Strambino - TO- ITALY Tel: +39 0125 6368.11 Fax: +39 0125 6368.99 Email: sales@seica.com



#### SEICA DEUTSCHLAND GmbH

Am Postanger 18 83671 Benedikbeuern GERMANY

Tel.: +49 8857 6976742 Fax: +49 8857 6976745 Email: hauptmann@seica.com



#### PROXIMA S.R.L.

via Gorra 55/B 29122 Piacenza - ITALY Tel: +39 0523 71 15 35 Fax: +39 0523 71 16 68 Email: info@proxima-ate.com



#### SEICA Inc.

50A Northwestern Drive Suite 10 - Salem NH 03079 - USA Tel: +1 603-890-6002-76-78 Fax: +1 603-890-6003 Email: sigillo@seica.com



#### **SEICA FRANCE SARL**

30, Avenue Robert Surcouf 78960 Voisins Le Bretonneux FRANCE

Tel.: +33 1 39 30 66 77 Fax: +33 1 39 30 66 78 Email: dupoux@seica.com



#### SEICA ELECTRONICS

(Suzhou) Co.Ltd. XingHan Street Suzhou Industrial Park,

Jiangsu Province, 215021 - CHINA Tel.: +86 512 67610421 Fax: +86 512 67610423

Email: seicachina@seica.com

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