

ELECTRONIC ENGINEERING 1991



SINERGO MEANS CULTURE OF INNOVATION

TRUST

Hundreds Firms worldwide have chosen Sinergo machines.

EXPERIENCE & CREATIVITY

We develop innovative solutions through a rigorous working method.

CARE & COMMITMENT

We carefully listen to our Customer's requirements: each request becomes a goal to achieve.

RESEARCH & DEVELOPMENT

We aim to provide our Customers with the best equipment and updated technology

QUALITY

We design our equipment in Sinergo assuring high standard quality from design to after-sale support.

SINCE 1991 **SINERGO** SUPPORT ITS OWN CUSTOMERS IN:

electronics, electro-mechanic, automotive, appliances, power semiconductor, optoelectronic, lighting, aeronautic, defence, medical, pharmaceutical, ... industry



SINERGO IS A TEAM OF SKILLED PEOLPLE ENGAGED IN

creation and development of new products. pre and post sales direct assistance and service. process revision and improvement as per "4.0 industry". mechanic 3D CAD, CAM processing, electric CAD design. A/D & HF electronic design, simulation & test, PCB design, ... C, C++, C#, PLC, SCADA, MES ... software development. 2D-AOI, 3D-AOI, 3D-laser, machine vision controls.

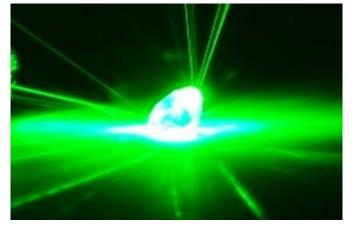
SINERGO OFFERS

dedicated laboratory for the preliminary and demonstrative tests. internal workshop to assembly machines, robots and lines. several new CNC machines up to 2000x1000mm working area.

SINERGO DEVELOPS NEW EQUIPMENT FOR THE

precision assembling, soldering, brazing, welding. heat-treating even in high vacuum. precision dispensing and curing. fully automatic test & measurement systems. dedicated machine vision and laser AOI controls. process controls, traceability, MES, remote control, ...







SINERGO TECHNOLOGIES & PRODUCTS

ELECTROMAGNETIC INDUCTION

S"M4" & "SINTESI 900" series high frequency generators. "M4 MEGAHERTZ" series miniaturized induction heaters. SINAX i-15 Robotic induction soldering & brazing. Selective soldering & brazing machines. Very high vacuum and very high temperature ovens

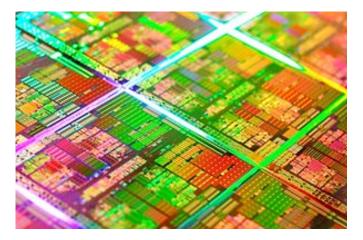
LASER

SINLAS 50 series: laser diode sources. Laser diode soldering systems with "process control pack". SINAX L 50 Laser selective soldering cartesian robots.

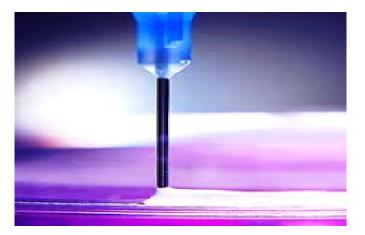
SIALAS 4X Fully automatic laser soldering custom machines. Nd-Yag laser integration for micro welding.

SOLDERING TOOLS AND SELECTIVE SOLDERING EQUIPMENT

SI-PRO Professional soldering stations and hand tools. SI-HF Soldering stations ready for integration in automations. SI-DIF High accuracy tin wire feeder units and controllers. SISTAR Desktop selective soldering cartesian robots. SINAX H-15 High performance soldering CNC cartesian robots. SIRTAS Multipoint rotating table soldering machines. SI-TOP "Robotic arm" soldering machine with conveyor line.







SEMICONDUCTOR INDUSTRY

"In line& touch-free process" automatic production lines, from DCB with bonded die to the finished module. Wafer test and measurement, robotic arm handling. Equipment for mass production of "DCB" power modules. Handlers and systems for automatic test on power modules. Assembling, casing, weighing, dispensing, curing, pressing, MV & 3D laser scanning on DBC modules AOI systems.

AOI OPTICAL INSPECTION

2D & 3D machine vision control and measurement.
2D & 3D laser scanning control and measurement.
Robot driving by MV.
IPC610 standard MV inspection
Barcode / data matrix / OCR marking and reading.
Thermographic control and temperature measurement.

DISPENSING

Mono & bi component precision dispensing units. Integration of jet, piezo, volumetric valves. In vacuum dispensing. Degassing and pumping units SINAX D-15 High performance dispensing CNC cartesian robots. Pumping stations for the whole factory, for 1 / 2 components. UV lamp and LED curing. Hot curing







SPECIAL EQUIPMENT

Fully automatic assembling & test of orthopedic prosthesis.
"Clean room" high-tech equipment, custom made.
Carbon fiber composites induction welding (patented).
Very high temperature & very high vacuum small ovens.
Micro flame selective soldering.
Torsional ultrasonic welding.
MV driven robotic arm Nd-Yag laser micro welding.

WATER CHILLERS

SI-CHILL 30 - 50 - 80 3000 to 8000 W cooling power. SI-CHILL 15 1.500 W green power "eco" chiller R290.

> High performance. Fully digital control "4.0 ready".

CUSTOM MADE SOFTWARE APPLICATIONS

Development of specific SW tasks, apps, controls.

CUSTOM MADE PART

Custom parts made by CAD + CAM + CNC machining.





SINERGO

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