DIE BONDER & COMPONENT PLACER

T-5100

MICRO ASSEMBLY

T-5000 SERIES

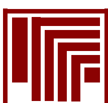
For over 40 years now, Tresky has been synonymous for perfect micro-assembly equipment in the world of R&D and small-scale production. Customers know and love Tresky because the equipment is so easy to learn and use: you can be productive from day one. Manufactured with Swiss precision and dedication to engineering, the machines can remain in use for many years, and they can be adapted and expanded for a large variety of new and evolving applications, keeping the investment always at the cutting edge of technology.

The **T-5100** is the universal workhorse for a wide range of micro-assembly tasks. The manual operation makes it so very flexible and adaptable to many tasks in the R&D area, and it is just as popular for small-scale and pilot production. The **T-5100-W** is equiped with Tresky's electronic die ejector system for pick-up from wafer.

Pick from Waffle/Gel Pack | **Sub-Micron Alignment Accuracy** | **Flip-Chip**

Eutectic Die Bonding | **Epoxy Dispensing/Stamping** | **Pick from Wafer**

Ultrasonic | **UV Curing**



TRESKY

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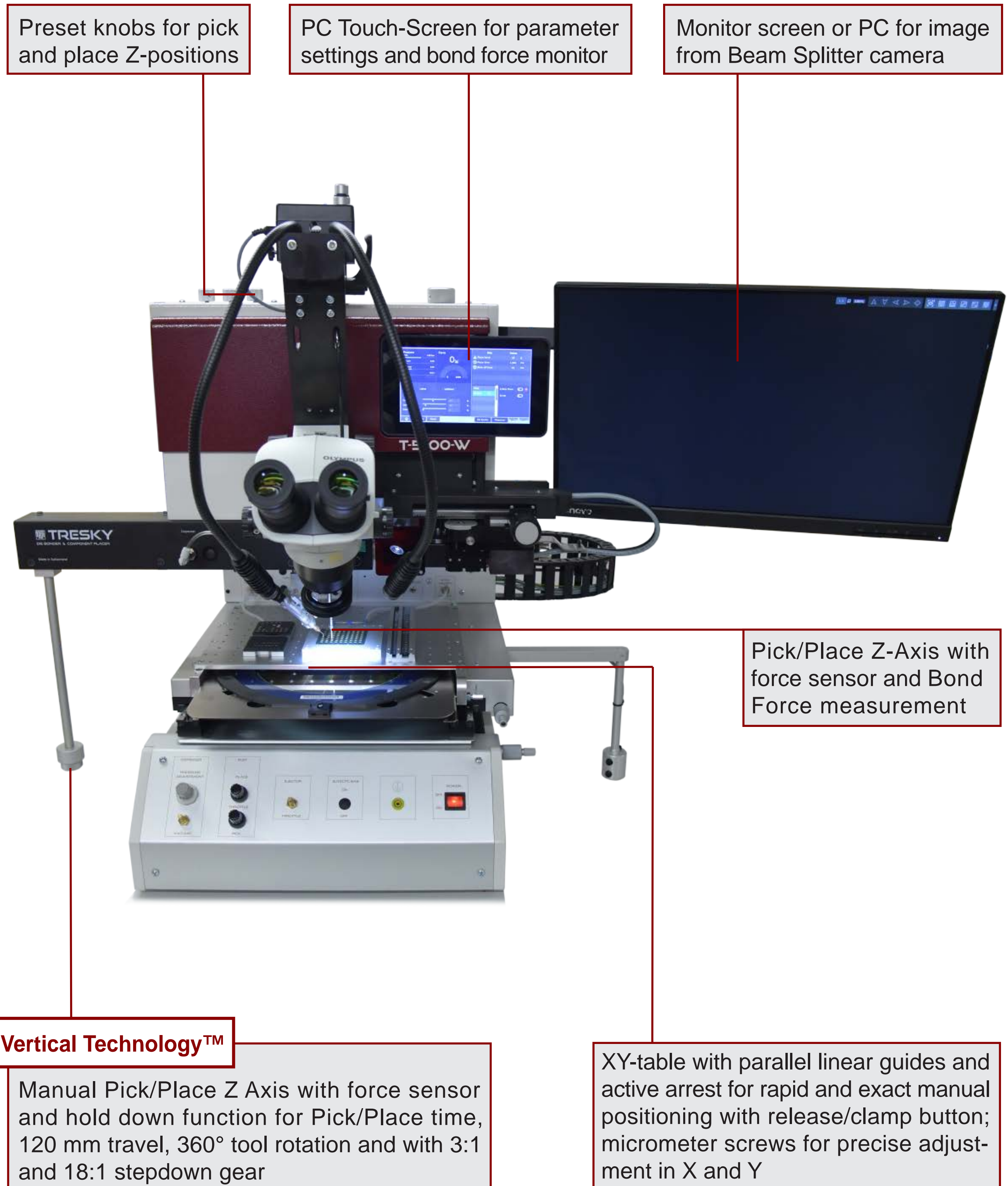
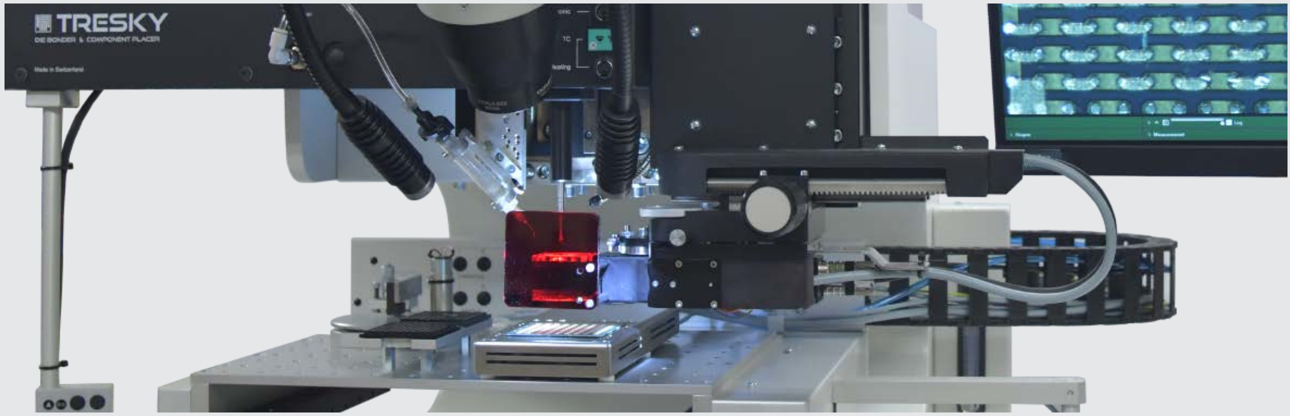
Operating a Tresky die bonder/placer is intuitive. A few minutes' training is sufficient to start working with the machine. The accuracy and repeatability of placing parts is superb thanks to a number of well-thought out features like a true, linear Z-Axis, Force Control, XY Fine Control and high resolution optics that allow flip-chip placing down to sub-micron accuracy.

The extremely rigid machine base is compact and fits on a lab desk. It can be expanded with many different modules to cover an enormous range of applications. The **T-5100-W** version features up to a 200mm wafer table which sits below the main table with Tresky's pneumatic die ejection system.





FLIP-CHIP MPA 5000

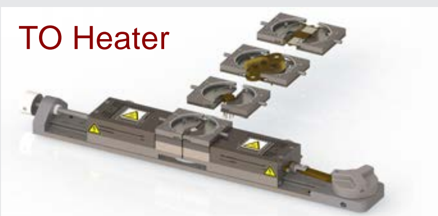
High-resolution placement unit with beam splitter and high-resolution camera, LED lighting for upward / downward and Coax looking or superimposed inspection, for ultra-precise Multi Point Alignment (range 50x50mm) at sub-micron resolution.

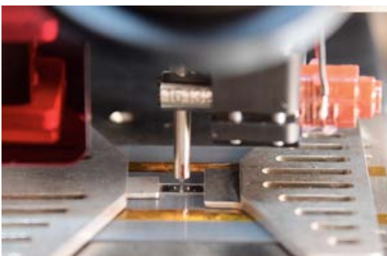
Many different holders for various substrate and package types, waffle/gel packs (2”, 4”) and trays

T-5100-W

Wafer XY table drawer with proprietary, pneumatic, Tresky die-ejection system for extremely gentle die ejection from wafer ring or frame

Substrate holders, heatable up to 450°C with external temperature controllers, optional versions with tool heating and for flooding with cold or heated forming gas





Optional:
Scrubbing motion or Ultrasonic bonding action

Optional:
Stamping unit for adhesive application by specialized stamping tools

Optional:
2nd spindle for preform pickup can be added

TYPICAL AND CUSTOMIZED APPLICATIONS

- Die sorting from wafer into waffle packs or gel packs
- Die attach with adhesive (stamped or dispensed)
- 3D packaging of MEMS, MOEMS, Photonics, ...
- High-precision placement with visual adjustment by beam-splitter unit for look-up inspection of edges, corners or patterns, e.g. for laser bars
- Flip-Chip with ultrasonic die attach
- Flip-Chip with adhesives or anisotropic foils
- Sensor assembly
- UV curing of die attach
- Eutectic bonding of AuSi, Copper Pillar and others

TECHNICAL DATA

XY- Movement (placement stage):	220mm x 220mm	(manual)
Z- Movement:	120mm	(manual)
Spindle Rotation:	360°	(unlimited)
Bond Force:	20g - 1000g	
Max. PC Board-/ Substrate Size:	400mm x 280mm	
Placement accuracy:	±10µm; <±1µm optional	(process and option depending)
Optical Resolution (Flip-Chip Optic 1x option):	1.25µm	
Optical Resolution (Flip-Chip Optic 2x option):	0.625µm	
Dimensions (with PC or Monitor):	1155mm x790mm x728mm	
Weight:	90kg	(+30kg option depending)
Voltage:	110V / 220V	

TRESKY

SOLUTIONS FOR MICROELECTRONICS ASSEMBLY

Dr. Tresky AG offers manual and semi-manual Die Bonding solutions for small and medium sized electronics assembly facilities, laboratories and R&D.

As a solutions provider, we support specific applications with our highly accurate and innovative systems. Starting from manual to semi automatic, from adhesives to tools, exactly as per our customer's need. This is made possible by our extensive experience and modular setup which allows adapting various basic systems with an huge selction of options for new processes.

With almost 2000 devices installed across the world, often with special & customized equipment, we diligently work to fulfill complex process requirements. Supported by a fast, flexible and professional team ready to be tested, we look forward to your challenge!

Note: All specifications are subject to change without notice

Headquarters

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