



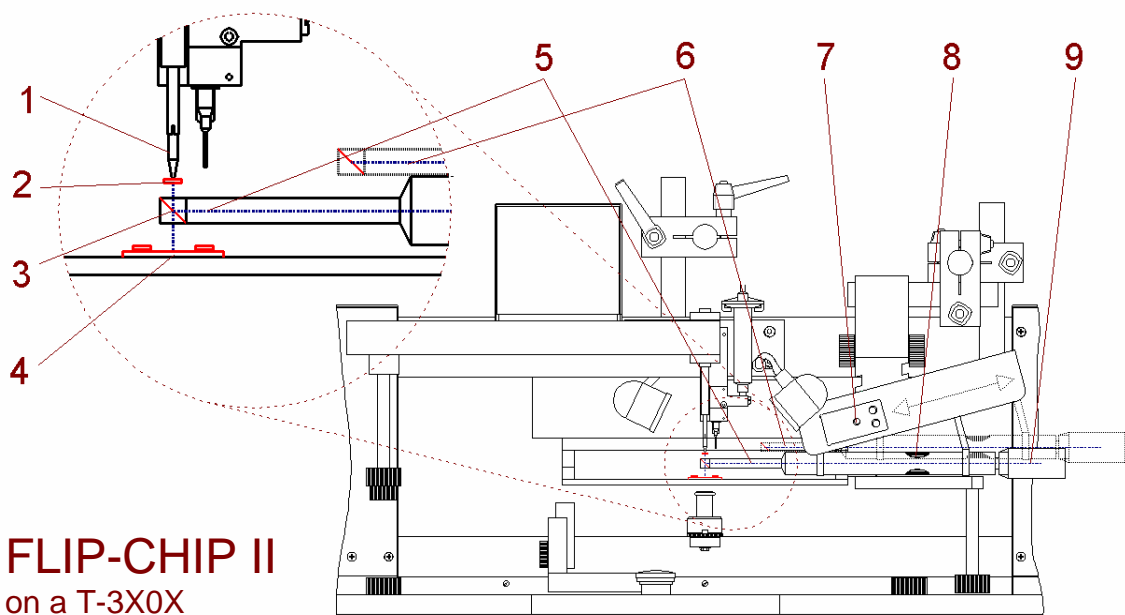
# TRESKY'S FLIP-CHIP II

Tresky's whole T-3X0X line can be supplied, or retrofitted at any time, with the Flip-Chip II option.

The basic part of this unit is a special beam splitter enabling a simultaneous view of the substrate and chip bump patterns. The field of view of the integrated zoom lens varies from 1mm x 1mm to 4.6mm x 4.6mm or 2mm x 2.6mm up to 12.7mm x 16.7mm.



- 1 360° rotative Vacuum Pick & Place Tool (Optional: Tool-Heating)
- 2 Flip-Chip,  $\mu$ BGA or any other Component
- 3 Special Beam Splitter.
- 4 Substrate or PC-Board on cold or heated holder.
- 5 Optical Unit inserted between Component and Substrate and the LCD-Monitor displays the topside of the substrate and the button side of the chip at the same time.
- 6 Optical Unit in inactive Position.
- 7 "ON-OFF"- Button; Optical Unit is motor driven and moves in X direction between the two Positions. The Control Box includes also a LED Light regulation.
- 8 Zoom- Adjustment (field of view: A version from 1mm x 1mm to 4.6mm x 4,6mm  
B version from 2mm x 2.6mm to 12.7mm x 16.7mm)
- 9 1/2" HR-Colour-CCD Camera



**FLIP-CHIP II**  
on a T-3X0X

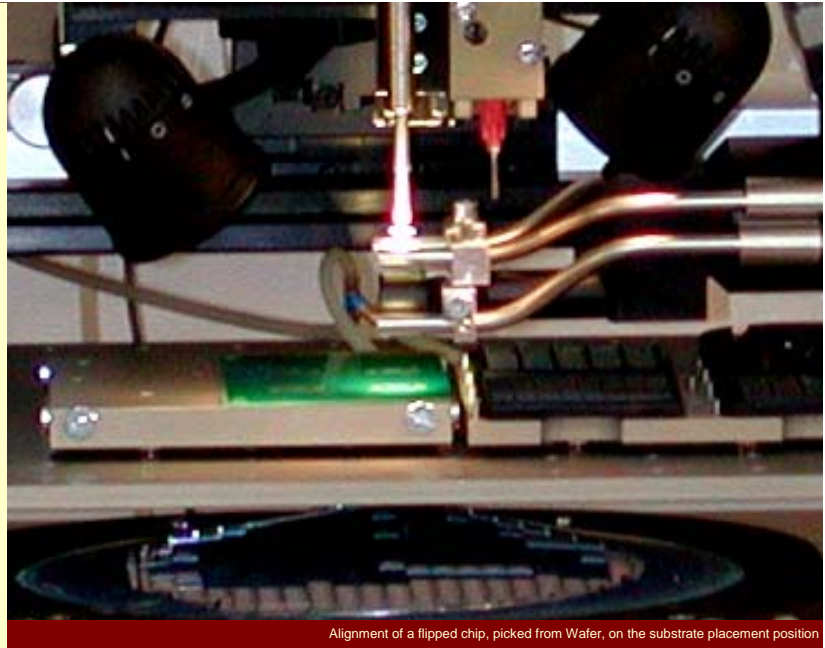
**Dr. TRESKY AG**  
Tel.: +41 (0)44 772 1941

Boehnrainstr.13  
Fax: +41 (0)44 772 1949  
[www.tresky.com](http://www.tresky.com)

CH-8800 Thalwil Switzerland  
email: [tresky@tresky.com](mailto:tresky@tresky.com)

## Operation Procedure:

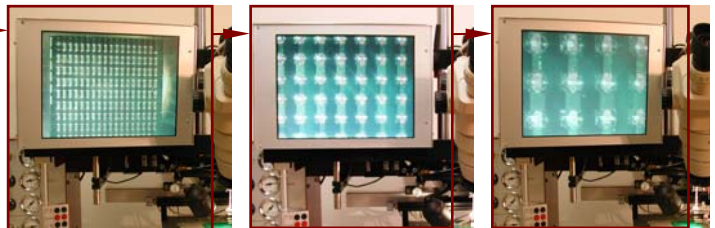
- Pick-up the Component
- According the application:
  - Place on the Flip Station
  - Component flips 180°
  - Pick-up the flipped comp.
- Move (manual or automatic) the Z-Arm in Upper Position
- Move (manual or automatic) the XY-Table to the approx. Placement / Bonding Position or alternatively to the Flux/ Epoxy station for dipping (Optional) and than to approx. Placement Position.
- Press the "ON-OFF" Button and the Optical Unit moves automatically in the active position; the image of the Substrate and image of the Component pattern appear simultaneously on the LCD screen.



Alignment of a flipped chip, picked from Wafer, on the substrate placement position

- The alignment of both images ensues by means of translations screws or electrical encoder in XY directions and arm rotation Knob for the angular correction.
- Press the "ON-OFF" Button and the Optical Unit moves automatically in the "OFF" position.
- Place the Component manually or automatically with programmed bonding parameters (force, time and temperature).

Zoom



## Further Options:

- Fibre-Optic Illum.:** Fibre-optic illumination for Flip-Chip (recommended for high magnification)
- Flip-Station:** Stage for (automatic) component flipping (e.g.: Flip-Chip, Laser Bar,...)
- Tool Heating:** Heating of the Pick and Place Tool. Max. temperature 350°C.
- Substrate Heating:** Heated stage with integrated vacuum hold down for eutectic and various other heated applications up to 450°C. Various configurations available in stage sizes with or without hot gas flow and controllers up to PC controlled/prog. temp. profile.
- Flux Station:** The Flux station is a motorized container maintaining a defined and constant layer of flux or adhesives. The picked up component can be dipped into the flux or adhesive.
- Silver Glass:** The silver glass option enables bonding of the component with a pre-defined glue thickness.

Represented by:

**Dr. TRESKY AG**  
Tel.: +41 (0)44 772 1941

Boehnrainstr.13  
Fax: +41 (0)44 772 1949  
[www.tresky.com](http://www.tresky.com)

CH-8800 Thalwil Switzerland  
email: [tresky@tresky.com](mailto:tresky@tresky.com)