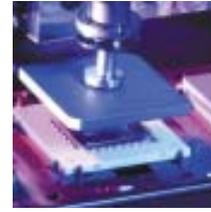


CT_x



High Accuracy Assembly Tool

Transform demanding assembly challenges into reliable productivity with the *CT_x*. Its advanced positional accuracy, linear motion speed and extreme versatility save time and money while delivering automated solutions to your production scale, quality-driven processes. *CT_x* can be configured as a stand-alone instrument or integrated with your production line to perform an extensive range of process development and production applications.

Accuracy x Value

The *CT_x* high-accuracy system makes possible the most challenging assembly tasks. With its ability to manufacture the toughest flip chip, die attach and optics packages, the *CT_x* offers industry-leading performance at a price that provides a quick return on investment. Low friction motion hardware and a simple design ensure continued high accuracy and low maintenance for the life of the investment.

Modular and Innovative

For new lab or production floor challenges, the *CT_x* offers a modular approach for innovative solutions such as flux, epoxy, and adhesive applicators, nanoliter dispensing, camera inspection systems, laser measurement tools and wafer die ejectors. Delicate part handling and assembly is easily accomplished without compromising overall machine throughput.

Speed Flexibility

Achieve throughput of up to 2200 UPH while maintaining high placement precision. The combination of a dual linear motor gantry drive with an industry-proven controller and amplification system allows the configuration of motion speed, acceleration and path profiles for all axes. With its advanced control system and flexible software, new process tools and peripherals can be easily integrated.



ARCon Parts, LLC

CTx Specifications

Transfer/Placement Heads

*Preform and Heatsink Placement
Fiber Optic Lens/Lid Assembly
Epoxy/Flux Dispensing
Substrate I/O Inspection
Biochip Development*

Options

Placement pressure range 0.22lbs (0.1 kg) to 4.4lbs (2.0 kg)
Programmable Z-speed, pressure and dwell time
Optional end-of arm tooling equipment
LaserAlign optical in-flight alignment of components up to 32mm (1.26")
Auto vacuum tip change rack
Spring loaded compliant tips are used for lower force requirements

Tray/Process Carriers/Substrate Handling

Dimensions (x, Y) 3" x 2" (75mm x 51mm)
up to 18" x 20" (457mm x 508mm)
Subject to process configuration
Types Auer, JEDEC (or similar design), BGA, graphite boats, custom carriers, lead frames, strips, PWBs, clipping, and custom part securing
Bi-directional conveyors (single or dual)

Components

Dimensions Minimum: 0.01" x 0.01" (0.25mm x 0.25mm)
from waffle pack
0.04" x 0.04" (1.02mm x 1.02mm)
from wafer
Maximum: Subject to process configuration
Consult factory for specific size and weight > 1 kg

Performance

Placement Accuracy X, Y +/- 0.0006" (0.015mm)
Z Normally compliant
All values are 3 sigma values using local fiducial vision tools
Encoder Resolution X, Y 0.000002" (0.0005mm)
Z 0.000004" (0.0010mm)
Theta 0.005 degrees
Placement Rate 1800 - 2200 UPH (subject to process)

Standard Component Handling and Feeding Systems

Pallet stacker/destacker
Wafer die ejector
Tray feeders (waffle pak, gel pak, custom)
Label feeders
Static platforms
Tape and reel feederbanks

Options

Auto vacuum tip change rack
Barcode reader and writer
Custom under-board support
Epoxy and adhesive dispense heads
Flux applicators

*For more information:
Contact us at 1-919-212-1279*

Dimensions and Weight

Footprint 50.5" W x 49.5" D x 69.0" H (1.28m x 1.26m x 1.75m)
Work Envelope (x, Y, Z) 22" x 26" x 3.5" (559mm x 660mm x 89mm)
Subject to process configuration
Weight 4000 lbs (1814 kg)