

SUSS FC-150 NIL

Description:

Nano-Imprinting Lithography allows for the realization of nanometer scale features using a simple and inexpensive imprinting technique. The FC-150 provides both thermal and UV curing as well as hot embossing imprinting. In addition the FC-150 employs a dual-head microscope enabling the realization of multiple layer 3D structure with very good registration.

Specifications Features:

- 1 Its 1 μm 3 s post-bonding accuracy and 25 μrad leveling guarantee high yields on the most advanced products
- 2 High level of application expertise gained from over 30 years of developing demanding and customized bonding application
- 3 Air bearing construction on a granite structure ensures long-term stability and reliability n Force and temperature profiling on both upper and lower components, together with process monitoring, maximize process control
- 4 Optional automatic leveling and alignment allow hands-off operation for production applications
- 5 User-friendly graphic user interface
- 6 Modular and open design offer a high degree of flexibility

PERFORMANCES

Post Bond Accuracy $\pm 1 \mu\text{m}$ (3 sigma) Force Range 0.3 - 500 N
(1000 N, 2000 N optional)

COMPONENT SIZE

Chip Size Substrate

BONDING ARM :

Leveling Travel Z Travel Heating Heating Speed

BONDING ARM

Leveling Travel Z Travel

OPTICS

XY Stage Travel Resolution Field Of View Autocollimator Sensitivity

XY CHUCK STAGE

XY Stage Travel Theta Travel Z Travel

OPTIONS

Large Travel Theta stage Advanced Laser-Leveling System Automatic Alignment for Hands-off Operation Process Recording Chip Solder Flux or Epoxy Coating Unit

FACILITY REQUIREMENTS

Footprint (L x D x H) Weight Frequency Power

0.2 - 40 mm (100 mm optional)

0.5 - 150 mm (larger on request)

UBA

± 0.57° 178 mm RT to 450°C varies with chuck selection (6 - 75°C/sl)

SRA

± 0.5° 162 mm

143 x 44 mm 1 μm 300 x 240 μm 25 μrad

300 x 250 mm ± 7 degrees 11 mm

UV glue curing system Ultrasonic Bonding Head Gas Confining Enclosure for Mass Reflow Chip Flipper Accurate Fluid Dispenser: Time/Pressure, Rotary Positive

displacement pump, Jet

1500 x 1270 x 1980 mm (2170 with UBA) Approx 800 kg 47 - 63 Hz 200/220 V, 20 A, Varies with configuration