**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
4. Force and temperature profiling on both upper and lower components, together with process monitoring, maximize process control
5. Optional automatic leveling and alignment allow hands-off operation for production applications
6. User-friendly graphic user interface
7. Modular and open design offer a high degree of flexibility

**PERFORMANCES**

Post Bond Accuracy ± 1 μm (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-Laveling 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