



ACCUBEAM

High-resolution Auto-align Imaging

Accu-Beam™ combines OLEC's renowned auto-alignment registration system and imaging platform with the superior collimated lighting technology of PerkinElmer.® Accu-Beam can be configured to image flat-panel displays, high-density interconnect, photo-chemical machining, PCB innerlayer, outerlayer, and soldermask. The payback for this new platform is extremely short with increased yields from tight-tolerance registration, short setup time, and the high-resolution capability.

Versatility

Accu-Beam includes OLEC's innovative automatic vision-based registration system, which can handle tasks impossible to achieve using conventional equipment and offers a much higher level of control and versatility.

Accu-Beam comes standard with four programmable cameras per tray and will align top-to-bottom-film and panel-to-film using a best-fit method.

High-resolution Optics

Precision Registration

Automatic Alignment

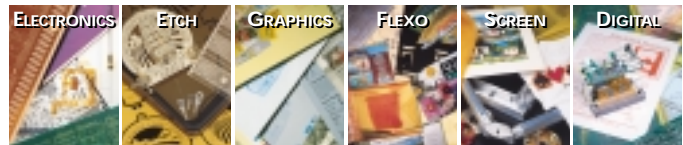
*Programmable
Configuration*

*Quick Turn or
Volume Production*



APPLICATIONS

- *Dry-film resist for innerlayer / outerlayer*
- *Liquid primary resist for innerlayer / outerlayer*
- *Soldermask (fine-pitch application)*
- *Flat-panel displays*
- *High-density interconnect*
- *Photo-chemical machining*



ACCUBEAM SPECIFICATIONS

FEATURES

- Highly collimated optics with flipping mirror
- Film-to-film / panel-to-film / fiducial-to-film registration.
- Cameras are programmable to accommodate panel sizes & targets
- Independent tray programming for job flexibility
- Pre and post-vacuum registration verification
- Go/no go print settings
- Exceptional for prototype, short-run, or tight-tolerance work
- Quick and easy artwork setup and change over
- Thermally or chemically strengthened glass for durability
- Up to 61 x 76 cm Image (24 x 30 inch)

OPTICAL PERFORMANCE

- Collimated optics @ 365nm
- UV beam average intensity uniformity 5kW
- 24" x 24" / 610 x 610mm ($\pm 10\%$)
- 24" x 30" / 610 x 762mm ($\pm 10\%$)
- Minimum exposure area: 9" x 16" / 229mm x 406mm
- Exposure compartment specifications
- Temperature rise at phototool: $< 5^\circ \text{F}$ (2°Celsius)
- Collimation: ± 1.5 degrees side by side
- Declination: < 1 degree

Light source: 5kW ozone free mercury / xenon short arc lamp

Exposure controller: Automatic in millijoules, time mw/cm² or manual operation

GENERAL

Input voltage: 208-480 vac

3 phase, 50/60 Hz pneumatics

Air supply: 5 cfm @ 100 psig of cleaned filtered dry air

Exhaust: Customer supplied

6.2bars / 335 cfm

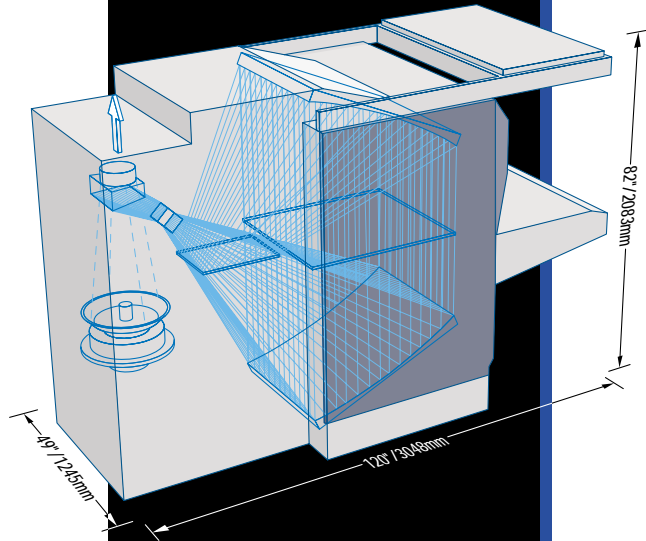
Size: 49" x 82" x 120"

1245mm x 2083mm x 3048mm

Shipping weight: 2000lb / 908kg

OPTIONS

- HEPA filter with anti-static bar
- Anti-static bar (tray area)
- Additional 16,000 BTU A/C
- Single-sided collimation discount
- Safety kit (lamp handling) included
- High-speed shutter assembly – recommended for < 2 sec. exposure
- Statistical register
- Absolute artwork deviation (glass register marks)



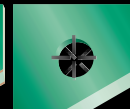
AccuBeam Registration



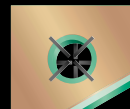
Innerlayer / PCM
After Etch



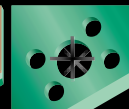
Fiducial



Outerlayer Or
Innerlayer Pre-Punched



Soldermask Fiducial
Two Sides



Outerlayer Statistical
Registration



Laser-Drill
Skived To Innerlayer

High accuracy alignment of top film, bottom film, and panel.



World Leader In Imaging Technology

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