

## PHOTOMASK INSPECTION/REVIEW STATION

The 342-PMI Photomask Inspection/Review Station allows hands-on operator manual visual inspection. Defect detection is further enhanced through the utilization of four (4) independent or eight (8) combined illumination modes with color contrast filters; Top and Backside Bright and Dark field illumination modes simultaneously. This method of multiple Bright and Dark illumination combinations enable detection of all defects in a single manual scan not found in a single Bright Field mode of illumination.



### *Features Include*

- Stage capacity for 4" to 7" Mask Reticles. Accepts Pellicles on both sides. Facilitates rapid Mask and Paddle interchangeability with maximum safety and minimum inspection time delay.
- Mask Paddles can be co-planar to stage travel.
- Easy manual location of mask defects.
- Eight combinations of Bright/Dark field illumination standard on all 300PMI Photo Mask Inspection and Review Stations.
- Cleanroom compatibility, constructed from anodize aluminum and stainless steel components.
- 342PMI Photomask Inspection Station provides a powerful hands on manual primary defect location and classification inspection station. For 4" x 4" to 7" x 7" mask reticles.
- Makes handling safe while utilizing 4" to 7" mask paddles. These have a large pick handling access opening and is a secure handling device for transporting individual mask reticles to and from the Inspection Station.
- Visual sub-micron defect detection and review.
- Visual review of all defect classifications, pinholes, edge defects, bridging, non-connects, scratches, thin metal and contamination.
- Greater advantage and probability of defect detection with eight (8) Bright/Dark field lighting combinations afford visual light shading and intensity for clarity.

## **GENERAL**

6" x 6" manual stage control by convenient coaxial X-Y knobs.  
Provides precise positioning X-Y for each axis.  
Eight combined incident and transmitted bright and dark field lighting modes on all 300 series Photomask Inspection Stations.  
Vari-rails accommodate mask or paddle size flexibility.  
CE / SEMI Certified PMI Stations available.  
Stage accepts 4" to 7" Photomask reticles with pellicles on one or both sides.  
Theta rail alignment of reticle edge with stage X axis.

## **FACILITY REQUIREMENTS**

Voltage / Frequency: 110VAC/60Hz standard or 220VAC/50Hz optional  
Current: 3 Amps @ 110VAC standard or 1.5 Amps @ 220VAC optional

## **SHIPPING DIMENSIONS**

Station Accessories, 1 Crate:  
1 - 36" (91.4cm) x 36" (91.4cm) x 36" (91.4cm)  
225 lbs. (102kg)

## **MICROSCOPES**

USMCO microscopes with variable 2X Zoom, standard  
Trinocular head, standard  
Adjustable 4-Port Turret, standard  
10X ultra-wide eyepieces with one crossline alignment reticle, standard  
2XL, 10XL and 20XL objectives, standard

## **MICROSCOPE OPTIONS**

Tilthead available, reduces neck strain and adapts to operator height differences. May be ordered with flip mirror or prism  
Measuring Eyepiece Reticle available  
15X or 20X eyepieces available  
50X, SL50X and SL100X objectives available  
Polarizer Kit

## **OPTIONAL ACCESSORIES**

CCD Cameras and wide field adapters  
KLA™ Interface Software  
Digital Video Image Enhancement  
Network Cards, customer specified

## **MASK PADDLES/MASK HANDLING SAFETY**

WP4040 4" x 4" square (133mm 3" & 4" Wafer)  
WP5050 5" x 5" square (152mm 6" Wafer)  
WP6060 6" x 6" square (200mm 8" Wafer)  
WP7070 7" x 7" square or semi-round (200mm 8" Wafer)  
*Contact factory for special configurations*

Local Sales Representative



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