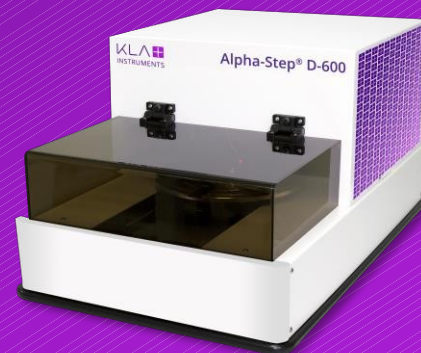


Benchtop Stylus Profilers



Tencor™ P-Series



Alpha-Step® D-Series

Optical and Stylus Profilers

Measure the topography of any surface with our range of benchtop and automated wafer handling optical and stylus profilers. Find out more at kla-instruments.com/stylus-profilers and kla-instruments.com/optical-profilers.



Zeta-20



Profilm3D®



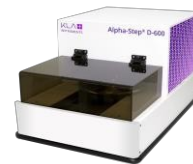
Zeta-300
Zeta-388



Tencor™ P-170
HRP®-260



Tencor™ P-7,
P-17, P-170F



Alpha-Step® D-500
Alpha-Step® D-600

The tables below present key specification comparisons between the Alpha-Step® and Tencor™ stylus profilers offered by KLA Instruments™. Please refer to detailed product specification sheets for additional information.

| Sample, Stage and Optics Specifications | | | | |
|---|---|-----------------------------------|---|---|
| Parameter | Alpha-Step D-500 | Alpha-Step D-600 | Tencor P-7 | Tencor P-17 |
| Scan Length | 30mm | 55mm | 150mm | 205mm |
| Sample Stage Diameter | 140mm | 200mm | 150mm | 200mm (300mm OF) |
| Stage Translation | 80 x 20mm | 150 x 178mm | 156mm | 205mm |
| Sample Positioning | Manual | Motorized | Motorized | Motorized |
| Theta Stage | Manual | Manual | Manual or Motorized | Motorized |
| Sample Thickness | 20mm | 30mm | 55mm | 55mm |
| Field of View | 3.8 x 3.1mm | 3.8 x 3.1mm | 1.7 x 1.4mm | 1.4 x 1.4mm |
| Zoom | 4X digital | 4X digital | 4X digital | 3.5X optical |
| Sample Chucks | Universal Nickel-plated Flat black Stress | Universal Nickel-plated Stress | Universal 150mm Universal 200mm Solar Stress | Universal 200mm Disk Stress OF: 240 x 240mm OF: 300mm |
| Chuck Vacuum | Universal chuck only | Standard | Standard | Standard |

| Performance Specifications | | | | |
|----------------------------|------------------|------------------|--|--|
| Parameter | Alpha-Step D-500 | Alpha-Step D-600 | Tencor P-7 | Tencor P-17 |
| Step Height Repeatability | 5Å for 1µm step | 5Å for 1µm step | 4Å for 1µm step | 4Å for 1µm step |
| Z Range | 1200µm | 1200µm | Standard: 327µm Low force: 131µm Extended range: 1000µm | Standard: 327µm Low force: 131µm Extended range: 1000µm |
| Vertical Resolution | 0.38Å @ 2.5µm | 0.38Å @ 2.5µm | 0.01 – 0.06Å | 0.01 – 0.06Å |
| Stylus Force Range | 0.03 – 15mg | 0.03 – 15mg | 0.5 – 50mg (SR, XR) 0.03 – 50mg (LF) | 0.5 – 50mg (SR, XR) 0.03 – 50mg (LF) |
| Profile Data Points | 400,000 | 400,000 | 1,000,000 | 1,000,000 |

| Software | | | | |
|-------------------------------|--------------------|--------------------|--------------------|--------------------|
| Parameter | Alpha-Step D-500 | Alpha-Step D-600 | Tencor P-7 | Tencor P-17 |
| 3D Scan Data | Not available | Optional | Optional | Optional |
| Automated Sequencing | Not available | ✓ | ✓ | ✓ |
| Pattern Recognition | Not available | Not available | Optional | Optional |
| Stress Software | ✓ Chuck optional | ✓ Chuck optional | 2D & 3D Optional | 2D & 3D Optional |
| Profile Stitching | ✓ | ✓ Automated | ✓ | ✓ |
| Auto Leveling and Step Height | ✓ | ✓ | ✓ | ✓ |
| Filtering and Roughness | ✓ | ✓ | ✓ | ✓ |
| Arc Correction | ✓ | ✓ | ✓ | ✓ |
| Computer Operating System | Windows 10, 64-bit | Windows 10, 64-bit | Windows 10, 64-bit | Windows 10, 64-bit |