

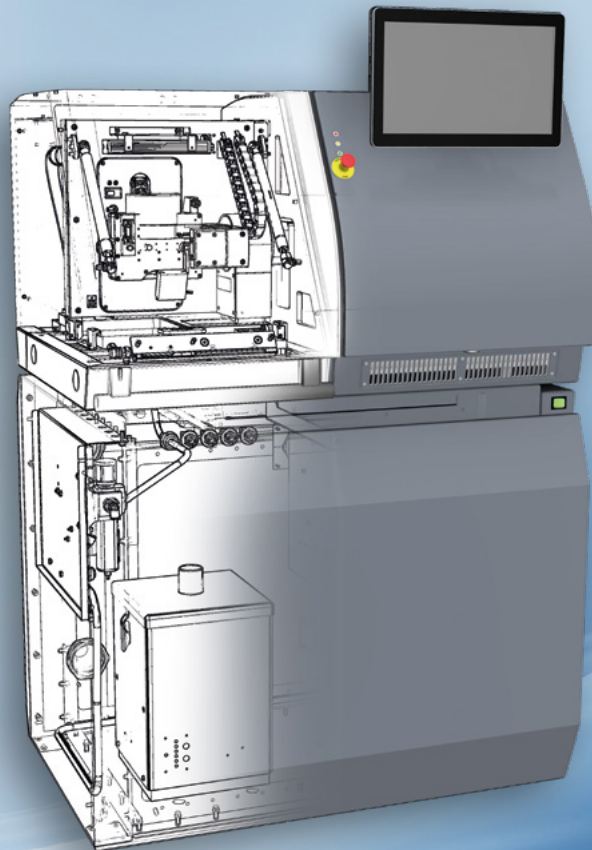
microPREP[®] PRO

MACHINE SPECIFICATIONS

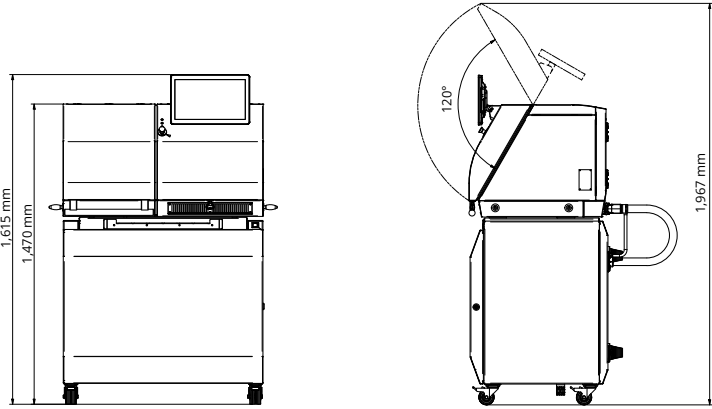
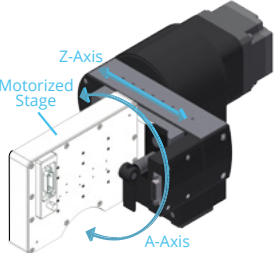
The main component of the microPREP PRO system is the ultra-short pulsed laser source that enables high ablation rates with great accuracy. microPREP PRO's excellent positioning system with piezo actuators as well as two cameras allow the user to bring specimens straightforwardly into the ultra-precise position for the desired preparation task. The integrated cleaning system prevents optical components from pollution, while the optional CO₂ Snow Jet removes debris from the sample surface within seconds.

TECHNICAL HIGHLIGHTS

- Compact design and laser class 1 (IEC 60825-1)
- Ultra-short pulsed laser
- Piezo-driven positioning system
- Overview and high resolution detail camera
- No warm-up phase - immediately usable
- Air cooled
- Powerful intuitive microPREP software



microPREP® PRO - SYSTEM DETAILS

<p>Machine Dimensions</p>	<ul style="list-style-type: none"> • Height: 1,590 mm excl. rolls 1,615 mm incl. rolls • Width: 980 mm • Depth: 780 mm • Weight: 390 kg 	
<p>Laser Unit</p>	<ul style="list-style-type: none"> • Type: DPSS (diode pumped solid state) • Max. power: 5.0 W • Wavelength: 532 nm • Frequency: 20 - 2,000 kHz • Pulse duration: < 100 ps - pulsepicker: optional • Pulse energy (@ 60 kHz): up to 80 µJ 	<p>Scanner:</p> <ul style="list-style-type: none"> • Scanner with f-theta lens • Focal length: f = 100 mm • Scanning field: 45 mm x 45 mm • Spot diameter: < 10 µm
<p>Positioning System for Base/Retainer</p>	<p>Z-Axis (stage/fixture retainer):</p> <ul style="list-style-type: none"> • Travel distance: max. 25 mm • Positioning accuracy: 5 µm <p>A-Axis (rotational axis for Z):</p> <ul style="list-style-type: none"> • Working area around focal point up to 160° • Positioning accuracy (output side): 16 µrad (0.0009°) 	
<p>Camera and Vision System</p>	<p>Overview Camera:</p> <ul style="list-style-type: none"> • Field of view: 160 mm x 120 mm • Resolution: 1,100 pixel/mm • Auto-focus field covers working area completely 	<p>Process Camera:</p> <ul style="list-style-type: none"> • Field of view: 3.2 mm x 2.3 mm • Resolution: 3,840 x 2,748 px (11 Mpx) • Working distance: ~ 65 mm • Depth of field: ~ 30 µm absolute • Pixel size in picture: 0.835 µm/px • Frame rate: max. 6 f/s • Rolling shutter technologie
<p>Standards</p>	<ul style="list-style-type: none"> • CE (2006/42/EG, 2014/30/EU, 2014/35/EU) • IEC 61010-1 (UL 61010) • Semi S2 / Semi S8 (optional) 	

Requirements

<p>Electrical</p>	<ul style="list-style-type: none"> • Rated Voltage: 110 - 230 VAC • Frequency: 50/60 Hz • Power: 0.6 kW 	
<p>Ambient Conditions</p>	<ul style="list-style-type: none"> • Temperature: 18 to 24 °C (64 to 76 °F) • Temperature for maximum accuracy: 21 °C (70 °F) • Vibration class: Minimum VC-B 	
<p>Cleaning System</p>	<p>Standard:</p> <ul style="list-style-type: none"> • Compressed dry air supply: 5.5 - 6 bar • Consumption: up to 250 l/min (adjustable between 0 - 5 bar) • Compressed dry air quality: 1 (particle) - 1 (oil) - 4 (water) according to ISO 8573-1 	<p>CO₂ Snow Jet (optional):</p> <ul style="list-style-type: none"> • Consumables: liquid CO₂ • Requires gas cylinder with siphon tube • Consumption: < 10 g per cleaning cycle



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