

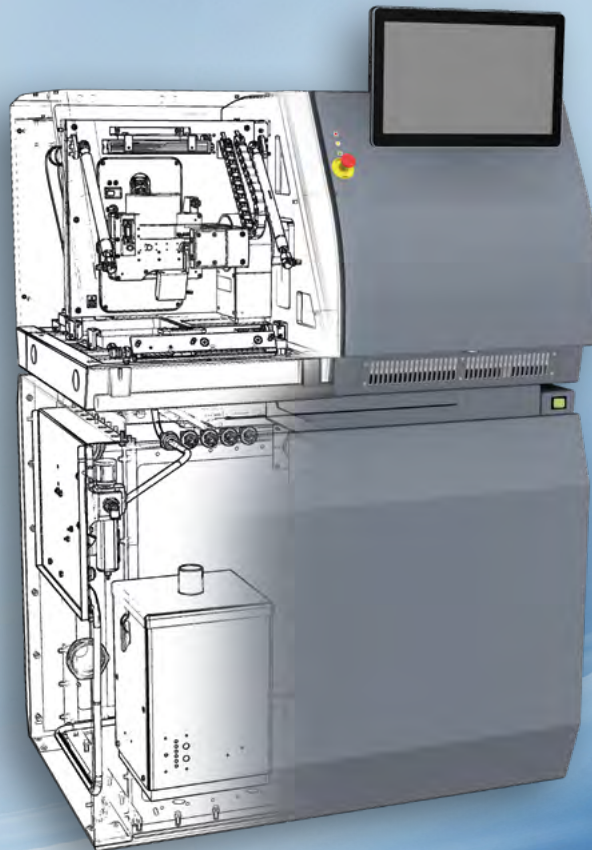
microPREP™ PRO

MACHINE SPECIFICATIONS


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.

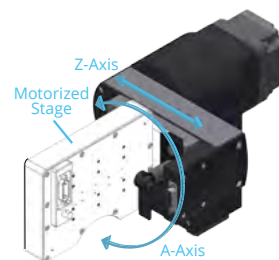
TECHNICAL HIGHLIGHTS

- Compact design and laser class 1 (IEC 60825-1)
- Ultra-short pulsed laser options
- Piezo-driven positioning system
- Overview and high resolution detail camera
- Short warm-up phase - immediately usable
- Air cooled
- Powerful intuitive microPREP™ software



microPREP™ PRO - SYSTEM DETAILS

	microPREP™ PRO	microPREP™ PRO SN	microPREP™ PRO FEMTO
Machine Dimensions	<ul style="list-style-type: none"> Height: 1,615 mm incl. rolls Width: 980 mm Depth: 780 mm Weight: 350 kg 	<ul style="list-style-type: none"> Height: 1,615 mm incl. rolls Width: 980 mm Depth: 780 mm Weight: 350 kg 	<ul style="list-style-type: none"> Height: 1,615 mm incl. rolls Width: 1,380 mm Depth: 780 mm Weight: 400 kg
Laser Unit	<ul style="list-style-type: none"> Max. power: 3 W Wavelength: 532 nm Frequency: 20 - 70 kHz Pulse duration: < 690 ps @ 70 kHz Pulse energy: up to 60 µJ 	<ul style="list-style-type: none"> Max. power: 5 W Wavelength: 532 nm Frequency: 20 - 2,000 kHz Pulsepicker: optional Pulse duration: < 100 ps Pulse energy: up to 80 µJ 	<ul style="list-style-type: none"> Max. power: 2.5 W Wavelength: 515 nm Frequency: 60 - 1,000 kHz Pulsepicker: optional Pulse duration: < 300 fs Pulse energy: up to 50 µJ
Scanner with F-theta lens	<ul style="list-style-type: none"> Focal length: f = 100 mm Scanning field: up to 45 mm x 45 mm Spot diameter: < 12 µm 	<ul style="list-style-type: none"> Focal length: f = 100 mm Scanning field: up to 45 mm x 45 mm Spot diameter: < 10 µm 	<ul style="list-style-type: none"> Focal length: f = 100 mm Scanning field: up to 40 mm x 40 mm (telecentrical) Spot diameter: < 10 µm
Positioning System for Base/Retainer	<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 		
Camera and Vision System	<p>Overview Camera:</p> <ul style="list-style-type: none"> Field of view: 160 mm x 120 mm Resolution: 1,850 x 970 px Auto-focus field covers working area completely Magnification: 2.5x 		<p>Process Camera to Find the POI:</p> <ul style="list-style-type: none"> Field of view: 3.2 mm x 2.3 mm Resolution: 3,850 x 2,580 px Depth of field: ~ 30 µm absolute Magnification: 85x
Standards	<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

Electrical	<ul style="list-style-type: none"> Rated voltage: 110 - 230 VAC Frequency: 50/60 Hz Power: 0.6 kW 	
Ambient Conditions	<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 	
Cleaning System	<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