

**Motic®**

# PSM-1000

The "All-in-One"  
Laser Ready probe station microscope.



PSM-1000

# Laser Ready ■ Ergonomics ■ Convenience!

## ■ The Construction or Shape:

### Designed for you

- Sleek and inviting, the design of the PSM-1000
- molds to you and your needs.

## ■ Ergonomics: All within reach

- The Motic PSM-1000 gives you the control
- without the inconvenience of distraction. With
- the aperture diaphragm and the changeover
- turret optimally located within the span of your
- hand, all adjustments to your requirements are
- a simple finger movement away. Clarity of sight
- is achieved with the one-hand operation of the
- diopter adjustment while remains attentive to
- the operator the task.

## ■ Parcentered ease

- With the Motic PSM-1000, you are able to
- parcenter your objective while viewing your
- sample. Simply insert the two centering keys
- above the objective in use and with a few turns
- the objective is parcentered.

## ■ Laser on demand: Just pull

- The Motic PSM-1000 is conveniently designed
- to be laser ready with just a pull of the beam
- splitter\*. Locate the I.C. and make the correction
- without transferring to another station or
- troublesome attachments. No more downtime
- for laser applications.

## ■ Adjusted to your needs:

### Motic Objective

- Available in parfocality adjustable and
- nonadjustable objectives, Motic **Plan**
- Apochromatic** objectives provide the superb
- image you require. Please see our objective
- catalogue for further information.

- \* Inserting the laser providers' safety filter is
- also needed.



# Performance ■ Reliability ■ The Motic PSM-1000

## ■ The Trusted Grip

- Rated for 60 lbs. of weight from laser and camera □
- attachments, the PSM-1000 focusing block □ □
- effortlessly attaches to your machine or system. □ □
- Additionally, the PSM-1000 focusing block comes □ □
- standard with slots for replacement of existing □ □
- focusing blocks.

## ■ Laser Efficiency: Second to None

- With an 89% efficiency rating in the IR setting, □
- the PSM-1000 ensures corrections and work is □ □
- completed correctly the first time with no need □ □
- for rework.

## ■ Lighting the micro world: The Motic cold-light source

- Convenient and practical, the Motic cold light □ □
- source equipped with a 2m light guide and remote □ □
- control intensity switch is built for installation in □ □
- the remotest areas of the system. Moreover, the □ □
- Motic cold-light source with a bulb life span of □ □
- 250 - 5,000 hours [ depending on intensity used ] □ □
- provides the peace of mind needed in this high □ □
- demand industry.

## ■ Options in mind: Analyzer / □ □ Polarizer Kit

- The Motic PSM-1000 design of ergonomic □ □
- convenience is further appreciated if one elects □ □
- for the optional Analyzer/Polarizer Kit. Both plates □ □
- effortlessly slide into pre-molded slots within the □ □
- span of one's hand for practical use.

## ■ Visible Options: Digitalization

- With the installation of one of the optional CCD □ □
- adapters along with a CCD camera, the micro □ □
- world of the PSM-1000 converts to macro for □ □
- accessible diagnosis of samples or work.



■ Focusing Block



■ PSM-1000 with NWR laser



■ PSM-1000 with cold light source



■ Analyzer



■ PSM with MOTICAM 3000 attached

## APPLICATIONS

### ■ Inspection

- The combination of the Motic PSM-1000 with □
- the optional stand and mechanical stage is an □
- ideal choice for quick inspection of silicon □
- wafers, packaged devices tools or other □□
- metallurgy applications.

### ■ Testing

- The original function of the Motic PSM-1000 □
- was insertion into a probe station for testing of □
- silicon wafers. Furthermore, with the ongoing □
- expansion of MEMS applications, the PSM-1000□
- is the ideal choice for MEMS testing stations.

### ■ Laser Work

- Connecting a New Wave Research Laser\* onto □
- the PSM-1000 and the simple sliding of the □
- beam splitter transforms the PSM-1000 into a □
- correction and ITO removal station. Pushing □
- the beam splitter back in allows for one to □
- inspect the laser work they recently completed □
- in full view.

### ■□ Work Efficiency

- The new Motic PSM-1000 relieves a lot of the □
- mental and physical effort associated with □□
- microscopy, leaving you to test and to discover!

\*□ Along with laser safety filter



■ PSM-1000 inserted into a probe station

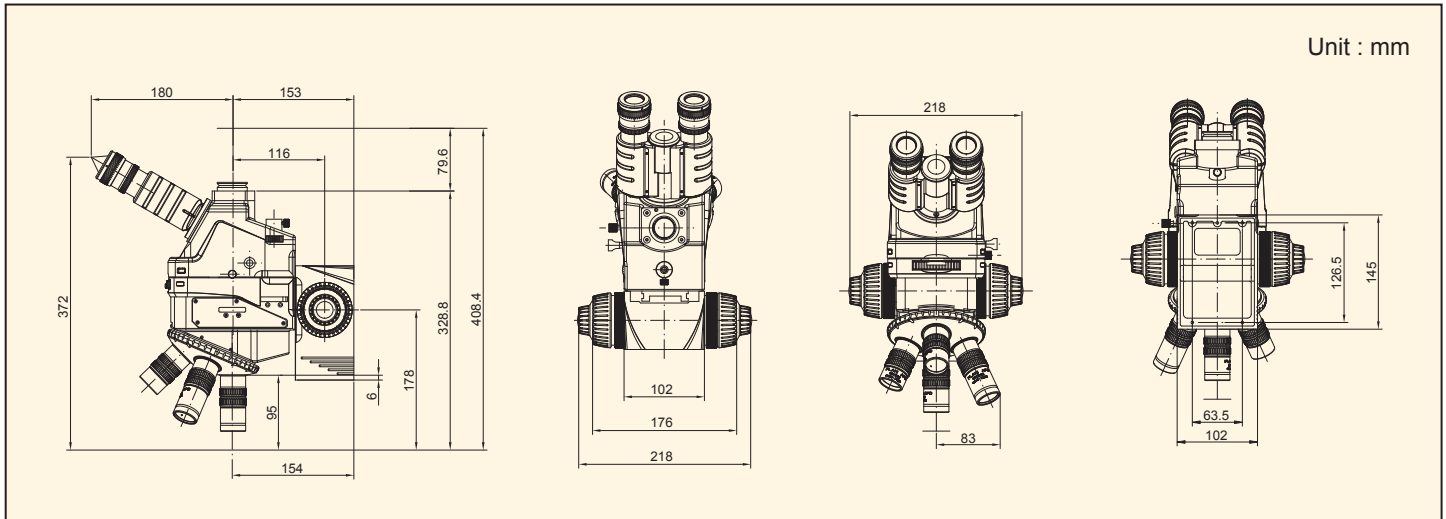


■ PSM-1000 with stand/stage and wafer



■ Silicon wafer captured by a Moticam

## PSM-1000 DIMENSIONS



## SPECIFICATION OF PROBE STATION MICROSCOPE PSM-1000

Purpose	<ul style="list-style-type: none"> <li>■ Inspection, quality control, and laser ablation.</li> </ul>
Observation Tube 100/0 50/50 0/100	<ul style="list-style-type: none"> <li>■ Widefield trinocular tube</li> <li>■ Siedentopf infinity</li> <li>■ 55-70mm Interpupillary Distance</li> <li>■ 50:50 simultaneous observation. 0:100 or 100:0 optical path system.</li> </ul>
Eyepiece	<ul style="list-style-type: none"> <li>■ Widefield High eye point</li> <li>■ Infinity Corrected</li> <li>■ 10x/24mm</li> </ul>
Turret	<ul style="list-style-type: none"> <li>■ 4-lens changeover turret with 1x NIR tube lens, 1x NUV tube lens, and 2x visible</li> </ul>
Laser Work	<ul style="list-style-type: none"> <li>■ Pull out beam splitter for laser work</li> </ul>
Wavelengths Coverage	<ul style="list-style-type: none"> <li>■ 355nm to 1064nm [specifically designed for New Wave Research Lasers]</li> </ul>
Nosepiece	<ul style="list-style-type: none"> <li>■ Quadruple outward-facing, spring-loaded nosepiece</li> <li>■ <input type="checkbox"/> Adjustable Parcentration</li> <li>■ Dove mounted</li> </ul>
Objectives	<ul style="list-style-type: none"> <li>■ Extra and Ultra Long Working Distance Centrabale Plan Apochromat objectives</li> <li>■ Wide range of objectives series.</li> <li>■ <input type="checkbox"/> Range of objectives from 2x to 100x</li> <li>■ Adjustable Parfocality available.</li> </ul>
Magnification	<ul style="list-style-type: none"> <li>■ 20x - 2000x</li> </ul>
Illumination	<ul style="list-style-type: none"> <li>■ Reflected Light illumination for bright field [Koehler Illumination] with aperture diaphragm</li> </ul>
Cold-light	<ul style="list-style-type: none"> <li>■ Switchable power input [110V/220V]</li> <li>■ 150W/21V output</li> <li>■ 1,600,000 lux</li> </ul>
Focusing Block	<ul style="list-style-type: none"> <li>■ 50mm focus movement</li> <li>■ Coaxial focusing system</li> <li>■ Coarse 4mm per rotation</li> <li>■ Fine 0.1 mm per rotation</li> <li>■ 45 kgs/99lbs mountable weight</li> </ul>
Weight	<ul style="list-style-type: none"> <li>■ 7.4 kg/16.3 lbs</li> </ul>
Dimensions	<ul style="list-style-type: none"> <li>■ 372mm/146.5" (h) x 218mm/85.8" (w) x 333mm/131" (d) - with focusing block</li> </ul>

## PARTS LIST OF PROBE STATION MICROSCOPE PSM-1000

Name	Part No.	Qty.	Note		
Trinocular Head	SW0199BD	1	●		
Body	SW0199BE	1	●		
Quadruple Nosepiece	SW011715	1	●		
Focus Block	SW0199BG	1	●		
WF10X/24 Eyepieces	SG02S0142	2	●		
Binocular Tube	SP100243	1	●		
Analyzer	SW01991Z	1	○		
Polarizer	SW01992B	1	○		
Camera Adapter	1X CCD Adapter	SP100386	1	C-mount can be attached	○
	0.5X (For 2/3" CCD)	SP100363	1	C-mount can be attached	○
	0.4X (For 1/2" CCD)	SP100365	1	C-mount can be attached	○
	0.3X (For 1/3" CCD)	SP100367	1	C-mount cannot be attached	○
Colour Sticker	SW022092	1	●		
Objective Adapter	SW011840	1	For 4/5"x1/36" Objectives	○	
Centering Key	SW0199BH	2	●		
Eyeguards	SW022164	2	●		

Objectives refer to objective catalogue. ○ Optional ● Standard

Note: Motic Instruments assumes no responsibility whatsoever for the performance and/or safety of the laser system used with the Motic PSM-1000 microscope. See Laser manufacturer for safety filters and proper operation.

# Motic®

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**Design Change:** The manufacturer reserves the right to make changes in instrument design in accordance with scientific and mechanical progress, without notice and without obligation.



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