

MANUAL PROBE STATION PM8



The Flexible Wafer Probing Solution

The SUSS MicroTec PM8 is the ideal solution for precise analytical probing applications up to 200 mm including device and wafer characterization tests (DWC), failure analysis (FA), high frequency (HF) as well as opto-engineering and MEMS tests. The PM8 is designed specifically to provide you with a highly stable, ergonomical and flexible probing platform.

Any probe system is only as stable as its base. The base of the PM8 takes advantage of an internal web design that evenly distributes forces and reduces vibration. It also contains the platen drive, which distributes the movement equally over all four corners of the platen. According to your application needs, you can choose between vacuum, magnetic or dedicated high frequency probe platens.

SUSS MicroTec can easily mount the microscope you require, giving you the flexibility to select the microscope according to your application. Our unique movable microscope bridge provides you with an easy and ergonomic coarse and fine adjustment of the system of up to 200 mm which can be done with just one hand. This makes the PM8 the ideal solution for all FA tasks and wafer level reliability tests.

Your Needs

Flexibility

PM8 Solutions

- › Ideal for FA, WLR, HF and MEMS
- › Extensive accessories available, such as laser cutters and wide range of equipment for HF testing
- › Works with probe cards and/or packaged parts

Stability

- › Fine-glide chuck stage on highly stable granite base
- › Ideal for submicron probing
- › Active platen cooling for thermal stability
- › Massive, web-cast frame
- › Superior vibration attenuation

Ease of use

- › Comfortable and ergonomical operation through low-profile design
- › Straightforward layout of controls
- › Rapid, independent X-Y chuck stage movement
- › Uniquely simple microscope

The innovative fine-glide chuck stage offers an unique simplicity and accuracy. It glides freely on a polished granite surface, allowing fast, independent X-Y indexing without turning knobs. Once it is placed in the test position, the stage locks into place and provides additional fine movement. The granite plate can easily withstand any thermal or mechanical influences and therefore, ensures complete system stability during your tests. This outstanding rigidity of the PM8 makes it ideal for all HF test applications up to 220 GHz. These HF tests are supported by the SussCal® family of calibration software including the NIST certified LRM+™ calibration method.

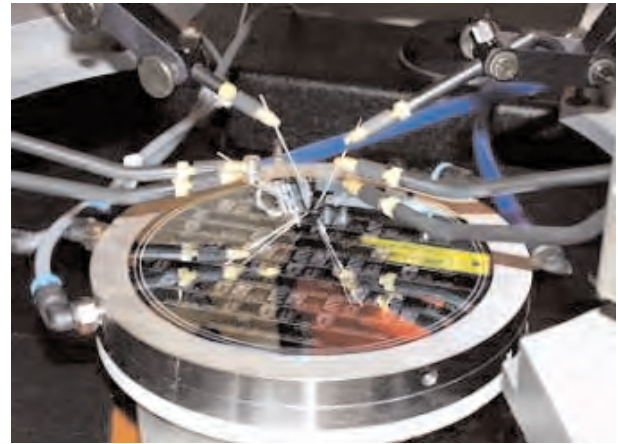
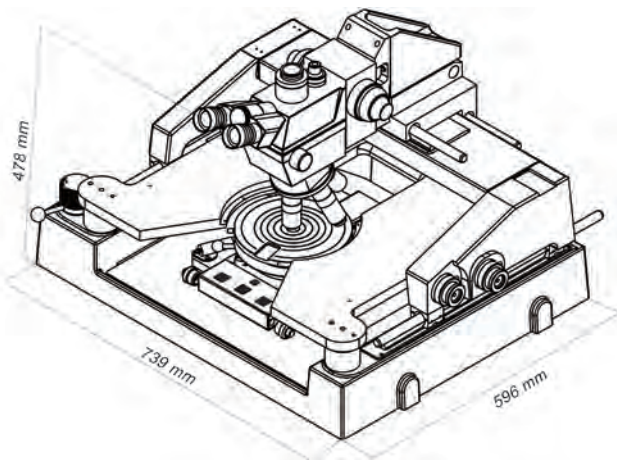
Ergonomically, the PM8 was designed with you, the operator, in mind. All controls are located to provide you with comfortable, effortless control. The PM8 has a very low profile, which gives you easy access to all parts of the system.

The PM8 can be outfitted with a number of accessories and upgrades. These include, among others, laser cutters and the remote controlled manual SUSS ProbeHead™ PH400 for failure analysis applications, chucks with special designs for calibration substrates and burnishing pads for high frequency applications. As with any probe system from SUSS, probe cards can easily be used for testing, and packaged parts can be tested with minimum setup adjustment.

Technical Data: PM8 Manual Probe Station

Chuck Stage	
X-Y travel coarse	200 x 200 mm
X-Y travel fine	10 x 10 mm
X-Y resolution	< 1 µm
Z load stroke	10 mm
Theta travel	± 9°
ProbeHead Platen Drive	
Z travel	45 mm
Contact/separation stroke	0.4 mm
Repeatability	< 1 µm
Rigidity vertical/horizontal	< 5 µm/10 N
Utilities	
Power	115/230 V, 50/60Hz
Vacuum	-0.8 bar
Compressed air	4 bar*
Dimensions and Weight	
Width x Depth x Height	740 x 600 x 550 mm
Weight	110 kg

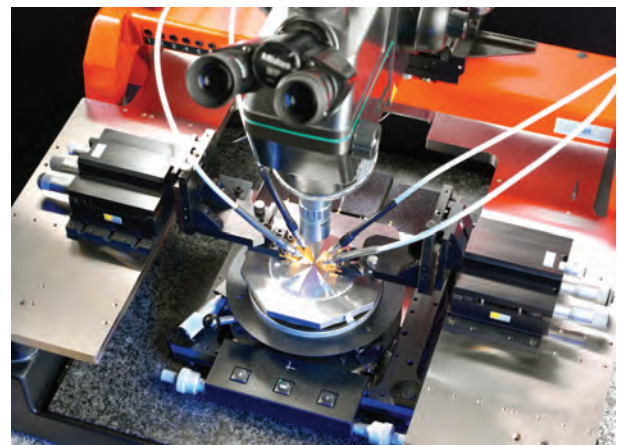
Data, design and specification depend on individual process conditions and can vary according to equipment configurations. Not all specifications may be valid simultaneously. Illustrations, photos and specifications in this brochure are not legally binding. SUSS reserves the right to change machine specifications without prior notice.



MEMS testing on PM8 with pressure chuck



Failure analysis with an optional laser cutter



Differential HF measurements with the Dual IZI Probe™

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