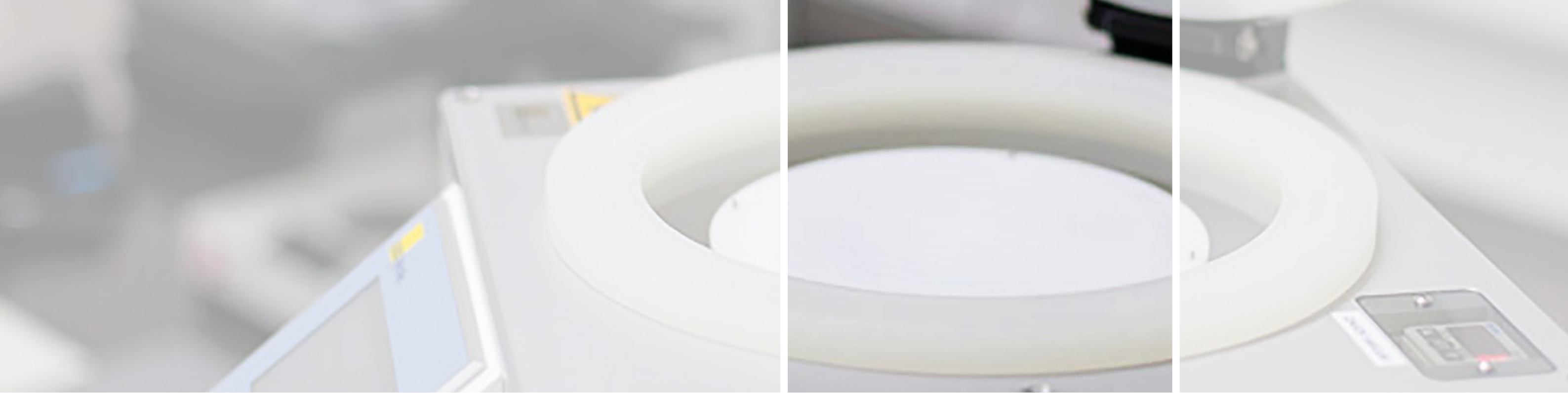
MANUAL SPIN COATER/DEVELOPER

SUSS LabSpin6 | LabSpin8

THE SOLUTION FOR LABORATORY COAT AND DEVELOP PROCESSES

SÜSS MicroTec



MANUAL SPIN COATER/DEVELOPER

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SUSS MicroTec's LabSpin platform represents the latest generation of manual coater/developer systems developed specifically for laboratory and R&D.
Designed for a variety of photolithographical chemicals, the LabSpin process station provides uniform, precise and repeatable coating results thanks to its advanced process chamber design.

SUSS MicroTec offers LabSpin systems in various versions for up to 150 mm or 200 mm wafers, either as a table-top (TT) unit or for integration into a wet bench (BM). The LabSpin stands out by a robust, simple design for comfortable, stable and safe use. The combination of many technical details like the durable plastic cover for good chemical resistance and maximum operator safety, removable process bowl for easy cleaning and the spill-free process chamber design makes the series unique.

The complete tool layout including the process chamber design and the resulting coating quality are based on SUSS MicroTec's field-proven coating technology knowledge.
LabSpin coaters can process a wide range of substrates including round, square and pieces through standard and customized chucks. The small footprint minimizes space requirements.

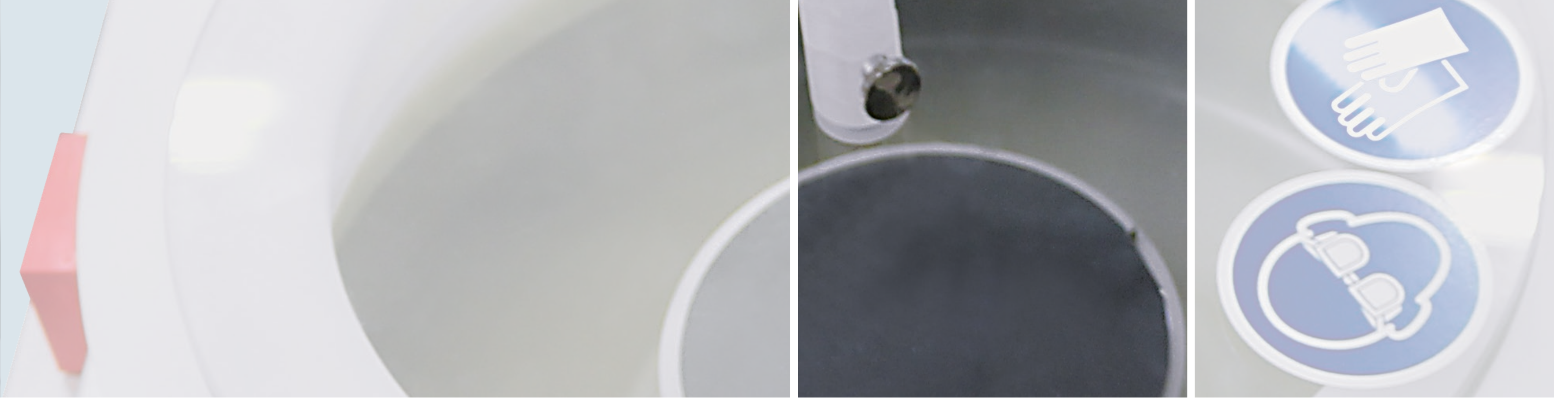
The chuck vacuum is produced internally. No extra vacuum pump is needed, but an external vacuum supply is also possible.
Every configuration of the SUSS LabSpin is based on world-renowned SUSS process knowledge and quality.

Multiple options are available to meet the requirements of various applications, such as:

+ spin coating, optional with:
  - syringe or automatic dispense system
  - edge bead removal
+ puddle developing

HIGHLIGHTS

+ Adjustable dispense position
+ Puddle development supported by chuck oscillation for reduced development time
+ Edge bead removal available
+ Removable bowl for quick changeover between different processes, avoiding cross contamination
+ Directly-coupled hollow shaft motor with a transparent liquid separator on the vacuum line
+ Drain bottle in front panel for easy access and monitoring of the waste level



AVAILABLE OPTIONS

ADVANCED COVER PLATE FOR OPTIONAL FUNCTIONS

LabSpin systems can be equipped with an advanced cover plate for optional functions such as:

+ Variable position of the resist dispense nozzle
+ Edge bead removal
+ DI water rinse
+ Nitrogen purge, developer for development processes

SYRINGE DISPENSE SYSTEM

The pressurized syringe dispense option is a versatile tool for applications with small resist quantities or for processes requiring frequent changes of materials. Pressurized syringe dispense enables a more efficient use of costly R&D materials.

FULLY AUTOMATIC DISPENSE SYSTEM

A fully automatic dispense system is the perfect solution for customers who strive to process multiple wafers on a manual tool. The fully automatic dispense system is mounted directly to the resist bottle. High dispense repeatability combined with optimized dispense volumes minimizes the material consumption and keeps the cost of ownership low.

EDGE COATING

LabSpin enables superior edge coating for best protection of wafer edges for ensuing process steps. Edge coating is possible for wafers from 2" to 150 mm on LabSpin6 and from 2" to 200 mm on LabSpin8.

EDGE BEAD REMOVAL (EBR)

The LabSpin series offers an adjustable EBR nozzle for superior edge bead removal in the range of 2" up to 150 mm or 200 mm wafers. The EBR dispense option includes a fully automatic solvent dispense system.

DEVELOPER DISPENSE SYSTEM

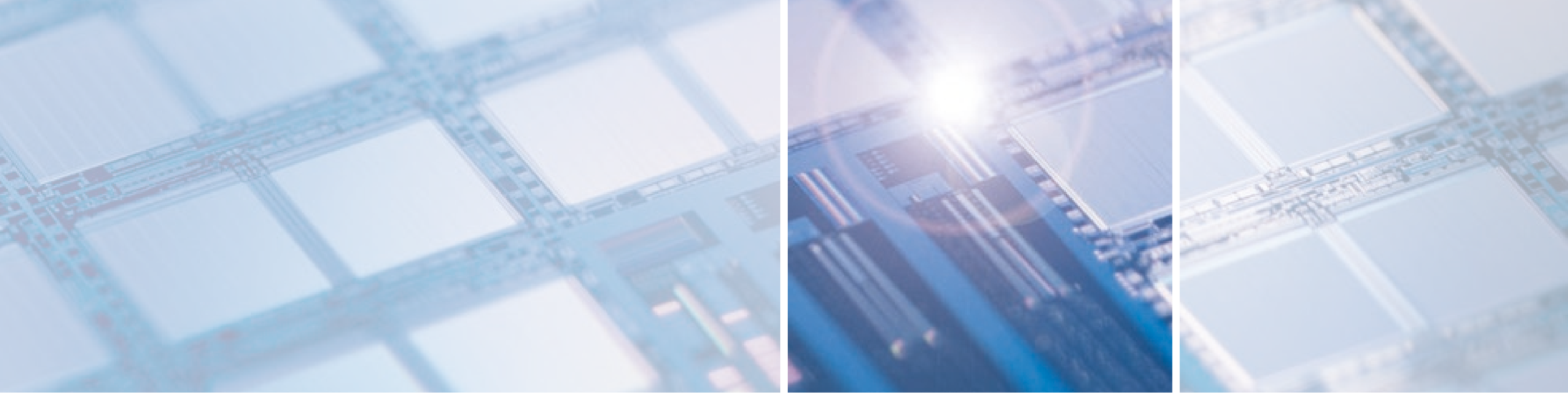
The LabSpin system can also be configured for puddle development processes. The developer dispense option is connected to the cover plate and employs a pressurized tank to deliver medium. Supported by chuck oscillation, the LabSpin platform provides uniform process results at reduced process times.

NITROGEN DRYING

The nitrogen drying option offers the possibility to dry the wafer after development and DI water rinse. The digital display allows monitoring of the adjusted nitrogen flow.

FOOT SWITCH

For a convenient start of processing, a foot switch can be added to the configuration.



SUSS LabSpin6 | LabSpin8

TECHNICAL DATA

TOOL CONFIGURATIONS	
LabSpin6	Up to 150 mm round or 4" square substrates
LabSpin8	Up to 200 mm round or 6" square substrates
VERSIONS	
Stand-Alone System	Table-top version (TT)
For Integration into Wet Bench	Bench-mounted version (BM)
CONTROLLER	
Graphical User Interface (GUI)	Touch panel with color display
Max. Number of Recipes	200
Max. Number of Process Steps	40
Programmable Step Time	1 - 999 s
Motor	Brushless EC-motor with hollow shaft and liquid separator
Max. Spin Speed	8 000 rpm +/- 1 rpm (with 200 mm chuck)
Max. Acceleration	4 000 rpm/s

SAFETY	
Digital Vacuum Gauge	Yes
Automatic Vacuum Control	Yes
Closed Cover Control	Yes
REQUIREMENTS	
Power	4.6 A / 2.5 A (115 V / 230 V)
Compressed Air	5 - 6 bar
Vacuum	min. -0.7 bar (optional)
Nitrogen	5 - 6 bar (optional)
DIMENSIONS*	
LabSpin6/8 BM (W x D x H)	350 x 340 x 415 mm
Controller (W x D x H)	160 x 120 x 67 mm
LabSpin6/8 TT (W x D x H)	350 x 455 x 420 mm

** without options*

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 MicroTec reserves the right to change machine specifications without prior notice.

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for your nearest SUSS representative or contact us:
SÜSS MicroTec SE
+49 89 32007-0 · info@suss.com

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