



AUTOMATION SOLUTIONS

Fully automated **auto-open-close (aoc)** fixtures

ADS - AUTOMATIC DRAWER SYSTEMS

Fully automated auto-open-close (aoc) fixtures

Drawer systems are characterized by their top-accessible inspection environment, which enables efficient integration into automated processes. They offer considerable advantages, particularly in automation, for example when testing large quantities. The easy accessibility of the drawers facilitates the use of robots, which optimizes processes and speeds and ensures consistent and error-free inspections at high production rates. Our concepts are also ideal for maintenance and service work, as side and rear panels can be removed quickly and easily thanks to the accessibility from above. This makes drawer systems particularly suitable for test environments where efficiency and precision are crucial. **Especially for automated operation with a loading robot!**



ADSP AUTO-OPEN-CLOSE in a 19-inch rack

Automatic pneumatic drawer system with MMI change kit

Contacting: 1200 N (approx. 600 needles á 2 N)

- Simple expansion of manual test environments for automated test processes
- Also ideal for small quantities
- No additional adaptations for regression or debugging debugging necessary
- Low stock keeping of the exchangeable systems
- Simple handling ensures high efficiency
- Easy to integrate into existing test racks
- Contacting on both sides



ADSPHF AUTO-OPEN-CLOSE

Automatic pneumatic drawer system with HF shielding

Contacting: 800 N (approx. 400 needles á 2 N)

- Automated, stackable test solution with RF shielding
- Can be operated autonomously or manually - ideal for Mixed operation in series production
- Space-saving setup of multi-test stations possible
- Easy to replace when changing products
- Maintenance-friendly thanks to integrated service flaps
- Easy to integrate into existing test racks (e.g. 19 inch)
- Contacting on both sides



eSlide

Automatic drawer system Electric

Contacting: 2000 N (approx. 1000 needles á 2 N)

- Autonomous electric opening and closing functions for fully automatic production
- Maximum safety even in manual operation - ideal for flexible mixed operation
- Stackable for space-saving multi-test stations
- Easy to integrate into existing test racks (e.g. 19 inch)
- Seamless integration into any production environment
- Lateral plug approach possible

eSlide

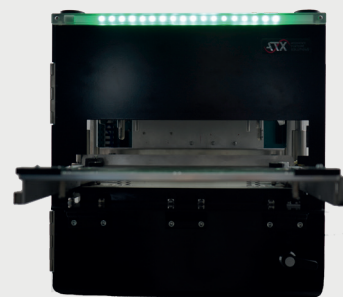
Fully automatic, electric drawer system

The eSlide sets new standards in automation:

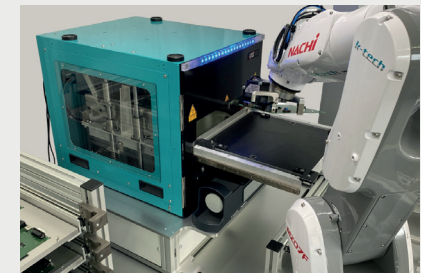
It opens and closes autonomously, enabling safe, unrestricted, and robot-assisted operation, while offering an unrivaled service life. Compact enough to be integrated into a 19-inch test rack or stacked multiple times, it makes optimal use of space and ensures smooth operations. Fully compatible with our proven MMIWK-A interchangeable cassette and, thanks to the ATX compatibility line, usable across manufacturers, it offers maximum flexibility, efficiency, and a future-proof investment.

eSlide - Produkthighlights

- Fully compatible with our proven MMIWK-A interchangeable cassette and, thanks to the ATX Compatibility Line, can also be used across different manufacturers (additional products in the pipeline)
- Tested for long-term durability over 2 million cycles with uniform needle distribution (2000 N) and symmetrical adapter design
- Unmatched service life thanks to high-quality components—ideal for testing high volumes or flexible high-mix/low-volume requirements thanks to innovative interchangeable cassette technology with a changeover time of less than one minute
- Efficient, unrestricted, and safe test execution possible via robot
- Stackable or seamlessly integrable into 19-inch test racks
- Robust, high-performance 24 V stepper motor for the stroke
- Increased productivity through fast automatic opening and closing of the drawer
- Individual adjustment of travel distances for multiple positions
- Included control electronics for communication via RS232



EXAMPLES OF USE



KEY FACTS



FACT-SHEET

MMI AOC-E | PATENTED

Fully automated auto-open-close (aoc) fixtures

An electric servo drive for automated opening, closing and contacting of your mechanical test fixture. Specifically designed to optimize your workflows and increase your productivity, it supports both manual and fully automated testing and offers a simple addition to your new test fixture or a retrofit option for later adjustments as volumes increase. Independent, round-the-clock testing by robots also helps to increase efficiency. **Also suitable for use with vacuum fixtures!**

AOC-E MODULE | AUTO-OPEN-CLOSE ELECTRIC

A small, compact and safe automatic electric open/close system

- Powerful 24V servomotor (1 motor for max. 1 kg hood removal weight*, 2 motors for >1 kg hood removal weight or from fixture size MMI-C)
- Tested for up to 1 million strokes with uniform needle distribution (800 N) and symmetrical fixture removal
- Unrestricted robot operation thanks to a 90° opening angle
- Increased productivity through automatic hood opening and closing at the end of the test
- Efficient test execution by robots, without taking over the hood actuation
- Simple retrofitting for later adaptation as production volumes increase
- Individual adjustment of paths, speeds and forces using controller software
- High-quality material selection for a long service life: All parts made of aluminum
- Included control electronics for communication via RS232
- Easy changeover to manual operation without any disassembly



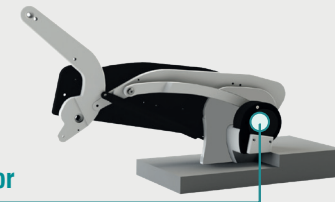
Currently available variants

Auto-open

- The operator inserts the assembly into the test adapter and closes the hood manually
- The adapter opens the hood automatically at the end of the test
- The operator removes the assembly and starts the process from the beginning by closing it manually

Auto-open-close in the secured area

- Automatic process including insertion and removal of the assembly via automatic feeding
- Use in a cordoned-off area in cooperation with a robot



High-performance motor

- ✓ 24 V voltage
- ✓ Simple design
- ✓ Compact construction



ME2-SERIE

Fully automated auto-open-close (aoc) fixtures

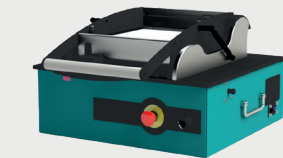
The ME2 series offers you perfect fixture solutions for needle forces of up to 600 N (approx. 300 needles of 2 N each) with maximum flexibility. It includes not only mechanical and pneumatic stand-alone adapters, but also the appropriate change systems and high-frequency variants. What makes this series so special? The seamless compatibility of the interchangeable cassettes within the line. Thanks to our innovative technology, the same interchangeable inserts can be used throughout the entire series, provided the board carrier dimensions are identical. This means that the pin carrier, board carrier and hold-down plate of the ME2 and ME2P adapters are compatible with each other. It is also possible to extend both variants with the ME2HFK high-frequency cassette.

ME2P & ME2PW AUTO-OPEN-CLOSE

Mechanical, pneumatic test fixture

Contacting: 600 N (approx. 300 needles á 2 N)

- Pneumatic fixture for high-volume production
- Precise handling - automated or manual
- Auto-open-close function for fatigue-free working
- 90° opening angle and suitable for robots
- Flexible as an interchangeable system with compatible components can be used



Base Unit



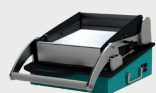
Interchangeable system

ME2PHF AUTO-OPEN-CLOSE

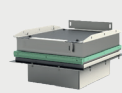
Mechanical, pneumatic high-frequency test fixture

Contacting: 600 N (approx. 300 needles á 2 N)

- Extension of the ME2 and ME2P series with integrated RF shield housing
- Reliable HF tests for sensitive or transmitting assemblies
- Effective shielding against interference
- Safe and precise testing of complex DUTs
- Ideal for transmitter-receiver combinations without production risks



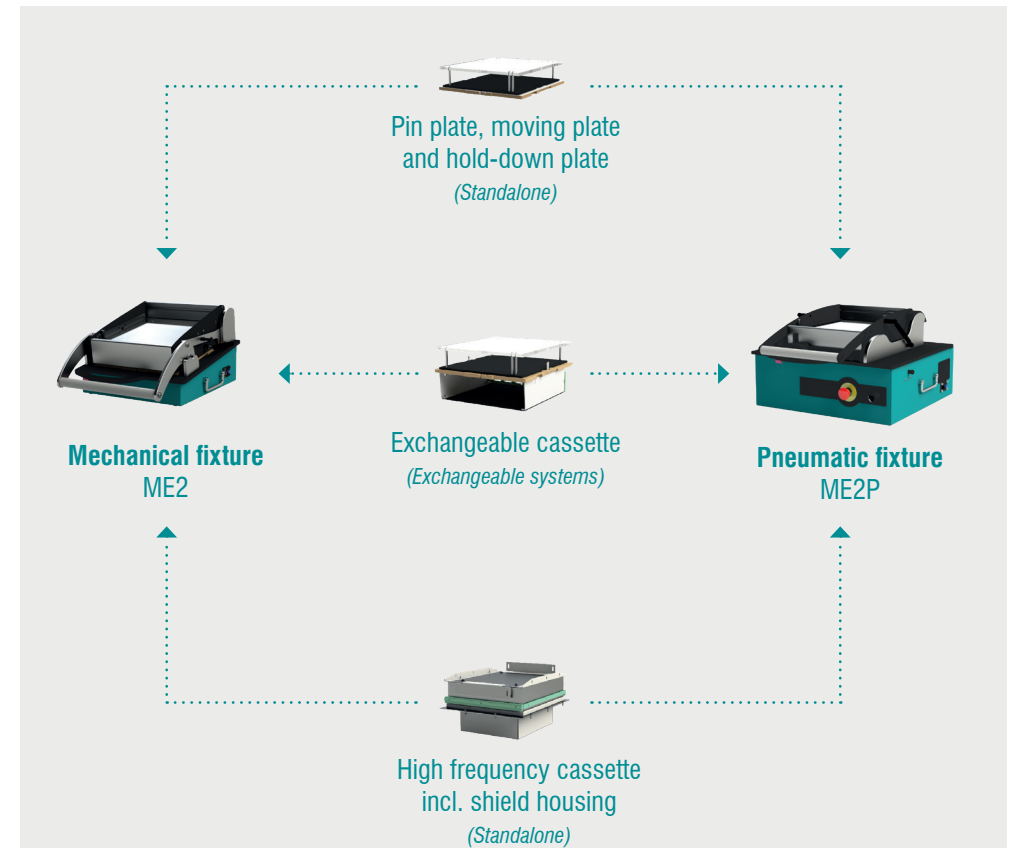
Mechanical fixture
ME2



Exchangeable cassette
(Exchangeable systems)



Pneumatic fixture
ME2P



MEP100-SERIE

Fully automated auto-open-close (aoc) fixtures

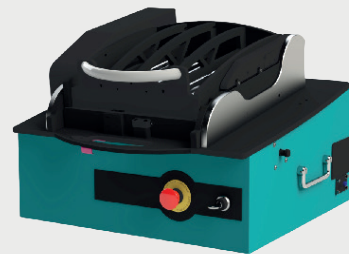
The MEP100 is the flexible automation solution for your production - whether manual, semi-automated or fully automated. Thanks to pre-programmed control, variable operating modes and safe, robust mechanics, it can be easily integrated into existing processes and ensures efficiency, safety and precision - even for the highest quantities.

MEP100 AUTO-OPEN-CLOSE

Mechanical, pneumatic test fixture

Contacting: 1200 N (approx. 600 needles á 2 N)

- Automatic opening and closing with 90° opening angle for optimum gripper access
- Can be used flexibly in automated, manual and collaborative processes
- Sensitive control enables safe manual operation operation is possible without additional safety measures possible - ideal for human-robot collaboration
- Ideal for flexible manufacturing processes



EXAMPLES OF APPLICATION



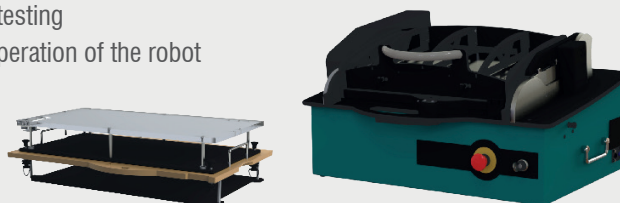
MEPW100 AUTO-OPEN-CLOSE IN ROBOT MODE

Mechanical, pneumatic change system

Contacting: 1200 N (approx. 600 needles á 2 N)





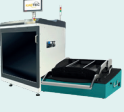



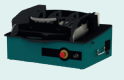






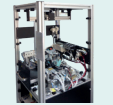


- Pneumatic adapter system for safe automatic opening and closing in the non-secured area
- Direct communication (via RS232) with test system and robot
- Enables automated, economical testing
- Supports cycle time-optimized operation of the robot

Reliable operation in non-fused area!




OVERVIEW

Fully automated auto-open-close (aoc) fixtures

ADS Automatic Drawer Systems <i>Auto-Open-Close</i>	ME2 Mechanical, pneumatic, high frequency <i>Auto-Open-Close</i>	MMI-AOC-E Mechanical, ergonomic, electric <i>Auto-Open-Close</i>	MEP100 Mechanical, pneumatic <i>Auto-Open-Close</i>	Inline with interchangeable set Auto-Open-Close	Special projects
 <p>ADSP with interchangeable set</p>	 <p>ME2P-B</p>	 <p>MMI-AOC-E <i>Also available for vacuum fixtures</i></p>	 <p>MEP100-B</p>	 <p>Inline system with interchangeable set</p>	 <p>EOL test station</p>
 <p>ADSPHF</p>	 <p>ME2P-C</p>		 <p>MEP100WG-B</p>	 <p>Other manufacturers with interchangeable set</p>	 <p>Air-conditioned fixture</p>
 <p>eSlide <i>Also compatible with MMI change kit</i></p>	 <p>ME2PWG-B</p>				 <p>Sliding fixture</p>
	 <p>ME2PWG-C</p>				 <p>Module test drawer</p>
	 <p>ME2PHF-B</p>				 <p>Test tower</p>

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