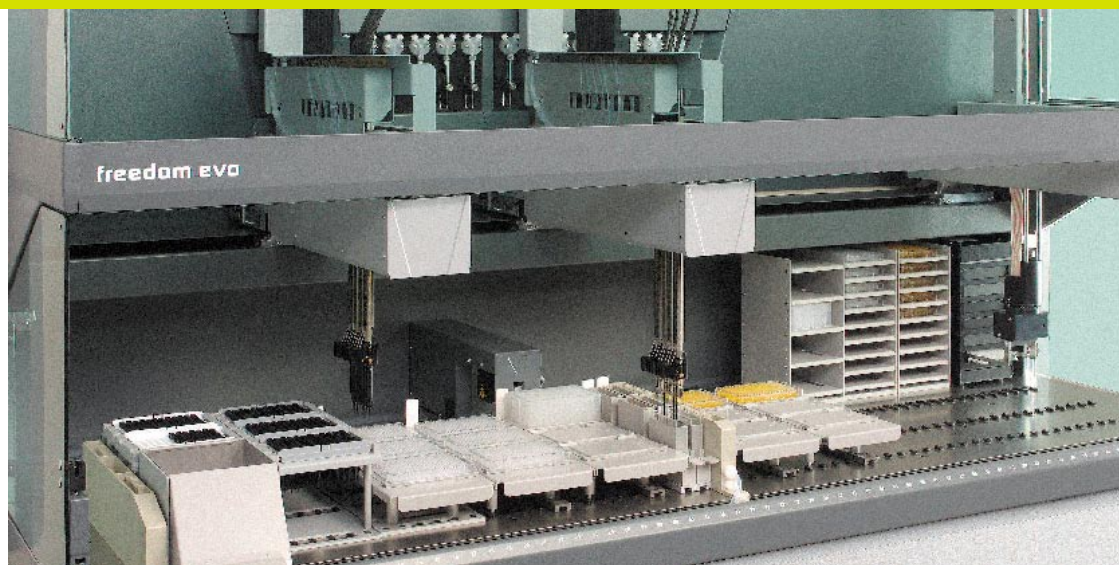


Freedom EVO®



Automated liquid handling with freedom to evolve

The Freedom EVO series of versatile liquid handling workstations serves an extensive range of life science applications and builds on over 20 years of Tecan experience to deliver complete, flexible and expandable automation solutions. Each workstation can be equipped with a choice of robotic arms, liquid handling tools and other devices to meet your requirements. With the intuitive Freedom EVOware® software, each system can successfully automate applications in drug discovery and development, diagnostics, veterinary and forensic laboratories.

The Freedom EVO series of workstations is available in four different base sizes (75, 100, 150 and 200 cm), each of which can easily be tailored to the laboratory's requirements with a range of automation-friendly devices, including:

- fast transfer robotic manipulator arms for moving tubes, plates and other labware between process modules
- high-precision liquid handling arms with independent liquid channel control for up to 8 channels and also a 96 channel head
- multichannel pipetting heads (eg. Te-MO™ 96 and Te-MO 384)
- detection instruments (eg. Infinite Series and Safire²™ microplate readers)
- vacuum solid phase extraction devices (eg. Te-VacS™)
- magnetic bead-based separation tools (eg. Te-MagS™)
- barcode reading and labeling devices (eg. PosID™)
- XP Smart™ dilutors with syringe combinations from 50–5,000 µl
- incubators and shakers (eg. Tecan MIO™ series and Te-Shake™)
- carousels, hotels and other labware storage devices
- standard labware carriers
- a variety of third-party instruments.

The choice of robotic arms allows robotic and liquid handling functions to be performed in parallel, ensuring the highest throughput and optimizing the process flow. A robotic manipulator arm has an extended vertical reach for integrating further modules below the worktable, for non-benchtop devices or for laboratories where benchspace is at a premium. Reconfiguration of an instrument on site ensures that each system can evolve as application or capacity requirements change, providing long term protection of the laboratory's investment.

The Freedom EVO liquid handling arm combines advanced pipetting precision with reliability and high throughput. It may be fitted with one, two, four or eight pipetting channels, each capable of independent height movement and automatic spacing for accessing vessels simultaneously between 9 mm and 38 mm apart. Each channel can use one of a range of different disposable or washable tips, allowing optimization of the application and minimizing the running costs of disposables.

The Te-Fill™ liquid handling arm greatly extends the upper liquid volume range, while other application-oriented tips (eg. low volume tips, nanopipetting tips) optimize the lower volume range.

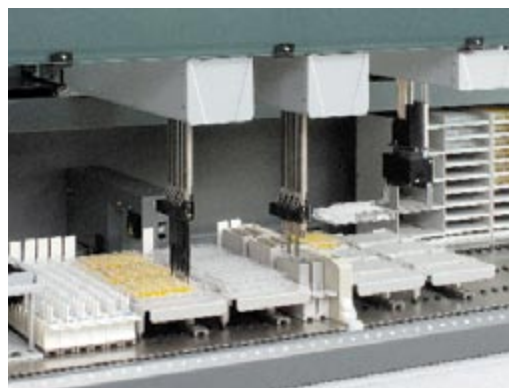
Each channel includes automatic liquid level detection using Tecan's conductive or pressure-based detection technologies to ensure safe and correct liquid volume transfer over a spectrum of different liquid types.

All Freedom EVO workstations are controlled with the intuitive Freedom EVOware software, a revolutionary and easy-to-use package that combines pipetting actions with the scheduled operation of devices for incubation, detection, mixing or other process steps. User management, file protection and traceability features provide the ability to comply with the FDA's 21 CFR Part 11 regulations.

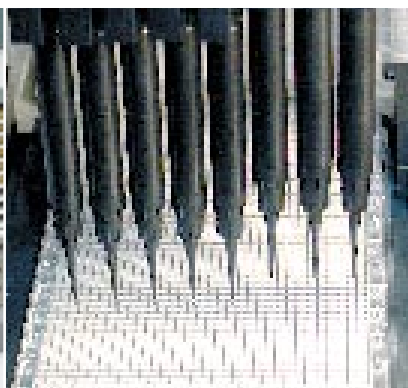
Not all options and features are available for Freedom EVO 75. Please refer to page 58 for more details on this instrument. Not all options can be used in the clinical environment. Please contact your local sales office.

- Flexible workstation integrates with many peripheral devices.
- Precise liquid handling for numerous life science processes.
- Freely configurable for multiple applications or users.
- User-friendly interface for easy task scheduling and control.

Simultaneous pipetting and labware movement



Pipetting into 1'536-well plate



Freedom EVO MultiChannel arm accessing shaker Te-Shake



Specifications

| | | |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| Dimensions | Freedom EVO 100 | 870 mm (height) x 1075 mm (width) x 780 mm (depth) |
| | Freedom EVO 150 | 870 mm (height) x 1450 mm (width) x 780 mm (depth) |
| | Freedom EVO 200 | 870 mm (height) x 2050 mm (width) x 780 mm (depth) |
| Worktable area: | Freedom EVO 100 supports 30 carrier units * | |
| | Freedom EVO 150 supports 45 carrier units * | |
| | Freedom EVO 200 supports 69 carrier units * | |
| Power supply | 800 VA, voltage 100–120 and 220–240 VAC (-15%/+10%), frequency 50 / 60 Hz | |
| Volume range ** | 10 nl–50 ml | |
| Liquid detection | presence, absence and quantification check of liquid volumes for all tip types, choice of detection modes, sensitivity settings and confirmation repeats | |
| Operating conditions | Temperature: 15–32 °C / 59–90 °F; relative humidity: 30–80% at 30 °C / 86 °F or below | |
| Intended use of the product | The Freedom EVO is an open automation platform product for general laboratory use. It is intended for routine laboratory tasks, such as general purpose pipetting and general purpose liquid handling and robotic processes. | |

Consumables

Disposable tips, fixed tips and reagents: please see Consumables page 134

* 1 carrier unit = 25 mm ** depending on arm configuration