

MultiChannel Arm™ 384 option

Increased throughput and flexibility for the Freedom EVO® liquid handling workstation

The MultiChannel Arm 384 for the Freedom EVO liquid handling workstation has been designed to offer higher productivity to automated liquid handling processes in pharmaceutical and biotechnology research applications. The arm can be mounted onto Tecan's Freedom EVO 100, 150 or 200 platforms, increasing the efficiency and speed of pipetting processes for higher throughput, as well as delivering a greater level of flexibility.

Broad volume range

The pipetting head features a very broad volume range from 0.5 µl to 125 µl in the 384-well format and from 0.5 µl to 500 µl in the 96-well format. It works with both disposable tips and washable stainless steel tips, which can be automatically interchanged during a run. Using fixed

washable tips for the pipetting of reagents or solvents may offer a reduction in running costs. When the protocol demands a new tip it can be easily switched to disposable tips, available in different sizes, 500 µl in 96-well format and 125 µl, 50 µl and 15 µl in 384-well format.

Pipette with 384, 96, 32, 24, 16, 12 or 8 tips

The head can rapidly change adaptors during a run to offer a variety of pipetting formats. It can mount four sets of 96 tips from a box of 384 tips, saving considerable deck space, or alternatively mount 96 tips directly out of a box of 96 tips for higher volume applications. It can even mount single rows of 24 or 12 tips and columns of 32, 16 or 8 tips. This feature can be used to pipette controls or to conduct serial dilutions over different plate formats.



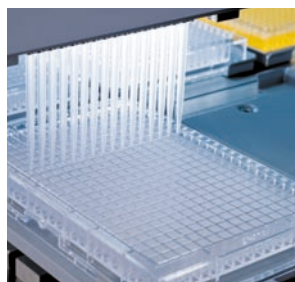
With the Extended Volume Adapter (EVA) the 384-channel head can pipette up to 500 µl in the 96-well format.

MultiChannel Arm 384 and parallel processing

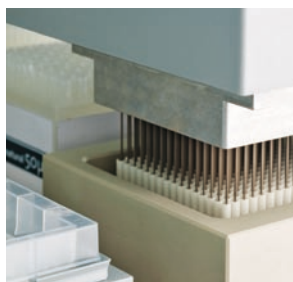
The MultiChannel Arm can be freely combined with other arms on the Freedom EVO, resulting in true parallel processing and increasing the productivity of the overall system.

Optional gripper

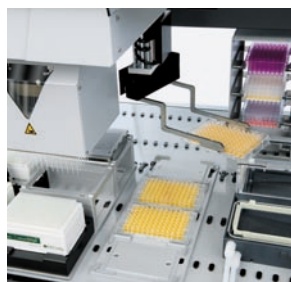
An optional gripper can be mounted on the pipetting arm to move plates, tip racks and other labware for added functionality.



The 384-channel head pipetting with a column of 16 tips.



The 384-channel head cleaning its stainless tips in the wash station.



The MCA 384 gripper is removing a microplate after dispensing.

The gripper option has individual movements in the y- and z-axes, as well as a 360° rotation axis to transport labware pieces and load positions in landscape and portrait orientation. The gripper module enables fast access to devices located on or around the workstation, such as microplate readers and washers, as well as storage and incubation devices. Furthermore, it can also be used to de-lid a plate for the duration of a pipetting step.

Main features

- Highest degree of format flexibility through different adapter plate usage. Tip arrays with 384, 96, 32, 24, 16, 12 or 8 tips
- Satisfy the demands of your assay with a broad volume range of 0.5 to 125 µl in the 384-well format and 0.5 to 500 µl in the 96-well format
- Easy reconfiguration through automatic exchange between disposable and washable fixed tips
- Increased productivity using parallel processing with other arms
- Flexible multi-channel pipetting powered by Freedom EVOware® software

Specifications of disposable tips

Pipetting of aqueous solutions²

With COMBO Adapter in 384 format

Tip size	Range	Performance ³
15 µl ¹	0.5 – 15 µl	CV < 4 % at 0.5 µl ⁴
50 µl	1.0 – 50 µl	CV < 4 % at 1.0 µl
125 µl	2.0 – 125 µl	CV < 3 % at 2.0 µl

Pipetting of DMSO solutions²

With COMBO Adapter in 384 format

Tip size	Range	Performance ³
15 µl ¹	0.5 – 15 µl	CV < 4 % at 0.5 µl
50 µl	0.5 – 50 µl	CV < 4 % at 0.5 µl
125 µl	2.0 – 125 µl	CV < 3 % at 2.0 µl

Pipetting of aqueous solutions²

With EVA Adapter in 96 format

Tip size	Range	Performance
50 µl	1.0 – 50 µl	CV < 6 % at 1.0 µl
100 µl	1.5 – 100 µl	CV < 6 % at 1.5 µl
200 µl	2.0 – 200 µl	CV < 6 % at 2.0 µl
500 µl	25 – 500 µl	CV < 2 % at 500 µl

Specifications of fixed tip adapters

Pipetting of aqueous solutions²

Adapter type	Range	Performance ³
SC 384	1.0 – 15 µl	CV < 8 % at 1.0 µl
LC 384	3.0 – 125 µl	CV < 5 % at 3.0 µl

Pipetting of DMSO solutions²

Tip size	Range	Performance ³
SC 384	0.5 – 15 µl	CV < 6 % at 0.5 µl
LC 384	2.0 – 125 µl	CV < 5 % at 2.0 µl

¹ will be available in the near future

² Photometry measurement, contact dispense, method and liquid handling parameters on request

³ Accuracy = ± 5 %

⁴ Accuracy = ± 10 %

Austria +43 62 46 89 33 Belgium +32 15 42 13 19 China +86 21 28 98 63 33 Denmark +45 70 23 44 50 France +33 4 72 76 04 80 Germany +49 79 51 94 170 Italy +39 02 92 44 790 Japan +81 44 556 73 11 Netherlands +31 18 34 48 174 Portugal +351 21 000 82 16 Singapore +65 644 41 886 Spain +34 93 490 01 74 Sweden +46 31 75 44 000 Switzerland +41 44 922 89 22 UK +44 118 9300 300 USA +1 919 361 5200 Other countries +41 44 922 8125

The MultiChannel Arm option is scientific instrumentation. Not for use in human clinical or diagnostic procedures.

Tecan Group Ltd. makes every effort to include accurate and up-to-date information within this publication, however, it is possible that omissions or errors might have occurred. Tecan Group Ltd. cannot, therefore, make any representations or warranties, expressed or implied, as to the accuracy or completeness of the information provided in this publication. Changes in this publication can be made at any time without notice. All mentioned trademarks are protected by law. For technical details and detailed procedures of the specifications provided in this document please contact your Tecan representative. This brochure may contain reference to applications and products which are not available in all markets. Please check with your local sales representative.

Tecan, Freedom EVO and Freedom EVOware are registered trademarks and MultiChannel Arm is a trademark of Tecan Group Ltd., Männedorf, Switzerland.

© 2011, Tecan Trading AG, Switzerland, all rights reserved. 10003BF100757

www.tecan.com

