



Fluent[®]

for Genomic Workflows.

INCREASED PRODUCTIVITY POWERED BY TECAN'S AUTOMATION WORKSTATION



 **TECAN.**

Get on the fast track
to genomic results.



*Example configuration for nucleic acid purification



Fluent's leading edge design delivers outstanding capacity and speed for genomics workflows. This innovative solution offers exceptional precision, high throughput and extended walkaway times. Get more done in less time, with greater confidence.

1 INTUITION BUILT RIGHT IN

Every Fluent comes with a dedicated **touchscreen interface** with a unique, run-only environment that can be individually tailored to specific applications and even optionally personalized for each user. Users require minimal training as the interface clearly defines every action for more straightforward, consistent operation.

2 SIMPLER WORKFLOW DESIGN WITH FLUENTCONTROL™

Discover the latest innovations in software control with **Smart Commands** that make it easy to program with confidence. Enjoy the flexibility of building a script with drag and drop elements, reviewing complete protocols in a 3D simulator and creating user interfaces for day-to-day operations.

3 DEVICE INTEGRATION FOR GENOMICS WORKFLOWS

Enjoy true walkaway operation with Fluent's seamless integration of complementary peripherals, all fully managed through FluentControl for maximum throughput and minimum operator input. The system offers seamless integration of temperature-controlled blocks, thermocyclers, readers, plate sealers and centrifuges to handle your complete workflow.

4 SAVE REAGENTS AND SAMPLES

For optimal liquid handling performance, Fluent is equipped with sensitive liquid level sensing that provides real-time aspiration monitoring, enabling the use of smaller sample volumes and minimizing reagent consumption, as well as exceptional automated error handling. Using Phase Separator™ technology, the Air FCA enables liquid-liquid interface detection and liquid separation. This is ideal for applications such as plasma and buffy coat separation.

5 GREATER PEACE OF MIND

Ensure the integrity of your results with a broad array of fully integrated technologies and capabilities:

- 1D/2D barcode reading for efficient sample tracking
- Primer and adapter tracking for PCR and NGS workflows
- Plate move confirmations and user interaction logs

6 EVOLVING WITH YOUR NEEDS

Fluent's patented **Dynamic Deck™** allows the high capacity worktable to be freely configured and easily reconfigured to accommodate alternative workflows. The cabinet-mounted option lets you take full advantage of the system's in-deck and below-deck access, expanding capacity and functionality without extending the instrument's footprint.

7 LOAD. CHECK. RUN.

Embedded DeckCheck cameras identify and highlight discrepancies between the loaded deck at run time and the expected layout to reduce loading errors and ensure successful runs.

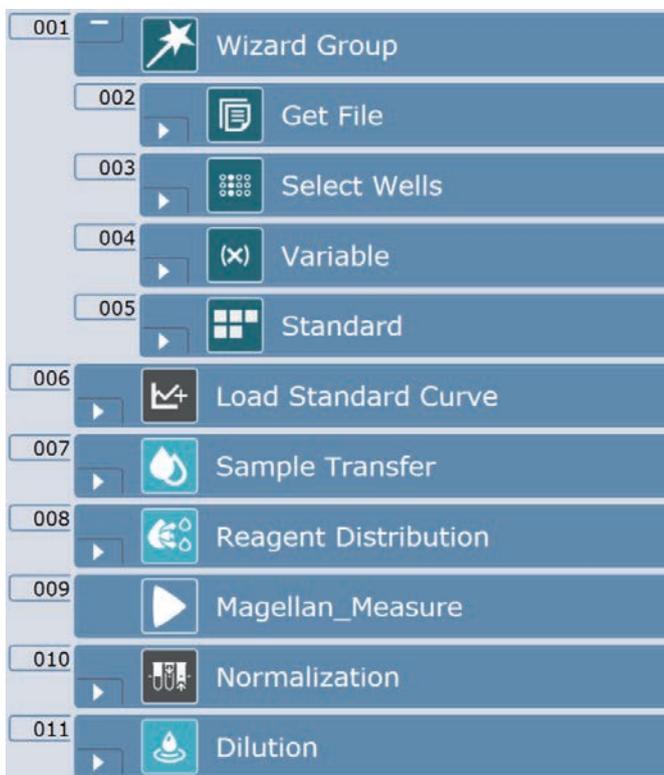
Do more in less time – and less space.

Tecan's application experts can help you optimize your workflow, freeing up staff time and maximizing your productivity.



FASTER NUCLEIC ACID PURIFICATION

Benefit from Tecan's extensive experience in automating NAP kits to configure the ideal solution for your magnetic- or filter-based purification methods. Fluent provides scalable solutions to match your throughput needs, with the flexibility to switch between random access samples, 96- and 384-well plates as required.



INTEGRATED QUANTIFICATION AND NORMALIZATION

Fluent with the Gx Assurance Software package offers fully automated nucleic acid quantification and normalization – using either fluorometric or bead-based techniques – ensuring standardization of samples to your target concentration for storage or processing.

- Quantify your samples after purification, prior to reaction set-up or during NGS protocols with an integrated multimode reader
- Use FluentControl to write methods for virtually any genomics application, with dedicated commands for creating standard curves, DNA/ RNA normalization, etc.



NEXT GENERATION SEQUENCING SAMPLE PREPARATION AND REACTION SET-UP

Rapid technology advances have made NGS a cost-effective alternative to PCR or array-based techniques for many applications, allowing pooling of hundreds of samples in one sequencing run. The speed, accuracy and precision of Fluent make the system ideally suited to preparing NGS libraries from multiple 96- or 384-well plates.

Benefits include:

- **Straightforward operation**, allowing you to customize the user interface to show only the relevant options
- **Greater reproducibility** between operators and over time, with high precision pipetting to reduce process variability
- **Flexibility** to expand for increased throughput, allowing you to switch between 96- and 384-well formats even during a protocol
- **Enhanced process security** with *Active Stop and Resume* and *Method Recovery* options to minimize the risk of 'washing away thousands of dollars' in lost samples and reagents
- **Extended walkaway operation**, thanks to easy integration of 1D/2D barcode readers, thermocyclers and microplate readers, and a range of storage options for plates and tips
- **Easy integration** into your lab, with LIMS-compatible file formats for simple data handling

WORKING IN A REGULATED ENVIRONMENT?

Fluent Gx Assurance Software offers a logical extension of essential features that enable the use of the Fluent in regulated laboratories. Features include user management, method approval, audit trail and sample tracking. For more information refer to the FluentControl software brochure.



*Example configuration for Ion AmpliSeq™ library preparation

Enhancing productivity from the inside out.

Fluent delivers exceptional positional accuracy and pipetting precision, offering enhanced process security and complete peace of mind for walkaway operation.

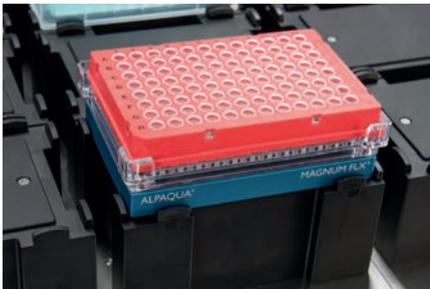
DRIVING REPRODUCIBILITY

The **Flexible Channel Arm™** is ideal for the preparation of samples, enzymes and adapters, enabling access to virtually any tube or well configuration. The ability to include two Flexible Channel Arms offers the unique choice of air and/or liquid displacement pipetting on one instrument.

SEAMLESS AUTOMATION

Device integration to fully automate your workflows

Fluent is designed to simplify daily tasks by integrating all the modules and devices required for complex automation. The **Dynamic Deck** provides exceptional capacity in a compact footprint, allowing integration of:



Magnetic separators – for nucleic acid extraction and clean-up*



Readers – for rapid DNA quantification



Frida Reader™ – offers in-process absorbance measurement free of any sample loss



Heating and cooling devices – for sensitive reagents and incubation steps**



Thermal cyclers – integrated PCR for complete workflow automation***



Stackers and carousels – for longer unattended runs

Simple logistics

The **Robotic Gripper Arm™** quickly moves labware between the deck, storage units and integrated devices, with an optional barcode reader for positive identification of samples and reagents. Its unique **Finger Exchange System™** allows it to switch between grippers on the fly, offering secure transport for plates and tubes.

Enhanced process security

Your samples are precious, so FluentControl provides the highest level of process security, with features such as:

- **Active Stop and Resume** – want to add a reagent during a run? Just open the door, add the reagent, close the door and let the instrument continue
- **Sample Tracking** – is an option for regulated laboratories. Continuous ID-based tracking of all pipetting steps and robotic movements is available for regulated laboratories, so you can always identify the protocol used
- **Method Recovery** – allows a process to be recovered, even after a fatal error such as a power loss
- **HEPA hood or UVC light options** – maintain a clean environment throughout the deck to protect your samples



Finger Exchange System



Fast and simple sample loading and identification with Fluent ID

ADDING SIMPLICITY TO EVERY INTERACTION

FluentControl is designed to meet the needs of both day-to-day operators and system programmers without compromise. A dedicated programming environment simplifies protocol development, while the built-in touchscreen interface guides users through daily tasks.

Faster, easier scripting

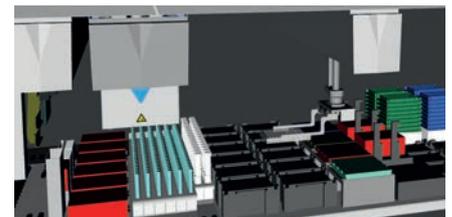
FluentControl's drag and drop command editor and intuitive 3D worktable simplify the development of new protocols, with automatic error checking to ensure rapid, easy scripting.

Highlights include:

- **3D simulations** – create and test new scripts virtually, improving laboratory productivity
- **Advanced undo/redo options** – even after saving or rebooting
- **Method approval** – prevent unauthorized changes to validated protocols



Touchscreen interface

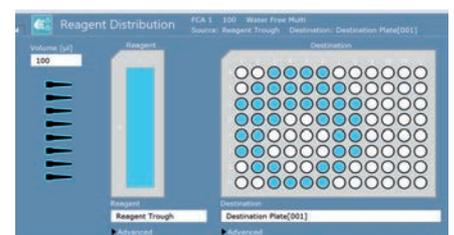


3D simulations

Smart Commands for common genomics workflows

These simple, one-line programming tools make it faster and easier to generate protocols, managing common activities such as:

- **Sample transfers** and aliquoting replicates
- **Reagent distribution** into a plate or series of plates, from a tube or trough
- **Standard curve** generation
- **Importing quantification** results
- **Normalization** of samples based on in-run measurements or imported files



Smart Commands – spend less time setting up common pipetting tasks

Optimal capacity. Optimal throughput. Optimal results.

FLUENT 480



30 plate positions

FLUENT 780



48 plate positions

FLUENT 1080



72 plate positions

DISCOVER THE FLUENT AUTOMATION WORKSTATION

To see Fluent in action and learn how it can improve the productivity of your laboratory, contact your nearest Tecan office or visit www.tecan.com/fluent



The Fluent Automation Workstation is a carbon neutral product. The calculated carbon footprint covers all relevant emissions over the product lifecycle – including raw materials for assembly, energy for manufacture, inbound and outbound logistics, in-service usage and end of life disposal.

Australia +61 3 9647 4100 **Austria** +43 62 46 89 330 **Belgium** +32 15 42 13 19 **China** +86 21 220 63 206 **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 17 4 **Nordic** +46 8 750 39 40 **Singapore** +65 644 41 886 **Spain** +34 93 595 25 31
Switzerland +41 44 922 89 22 **UK** +44 118 9300 300 **USA** +1 919 361 5200 **Other countries** +41 44 922 81 11

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