

## HELMED®

### IFA & ELISA PROCESSOR

The HELMED is a fully automated IFA Processor and semi-automated ELISA Processor. This open system is capable of incubating from room temperature up to 45°C, thus being the only system in the market able to process Infectious Serology slides, as well as Autoimmunity.

Automatic and Standard processing regardless of the operator

Reduced operator 'hands-on time'

Built-in BC Reading ensures correct patient IDs

Validated package for Instrument + AESKUSLIDES & AESKULISA

Suitable for Autoimmunity and Infectious Serology slides (37°C)

Up to 20 slides, 4 tests and 150 samples per run



## STANDARDIZATION

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*"HELMED Provides standardisation eliminating the inconsistency that can be attributed to human intervention and distraction. It improves time management and minimizes transcription errors with the built-in internal barcode reader and LIS interface."*  
HELMED user testimonial, Australia

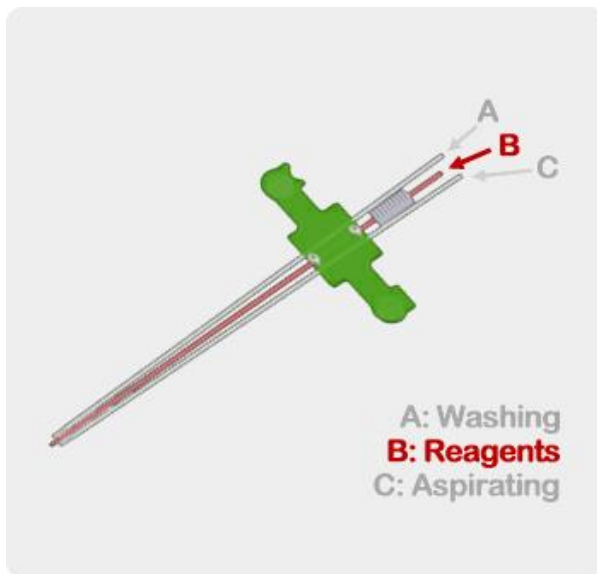
### LET THE HELMED DO THE MANUAL IFA WORK SO THAT YOU CAN FOCUS ON WHAT REALLY MATTERS

Loading is performed in a matter of minutes and hands-on time in IFA processing is eliminated. The IFA experts can concentrate on slide reading.

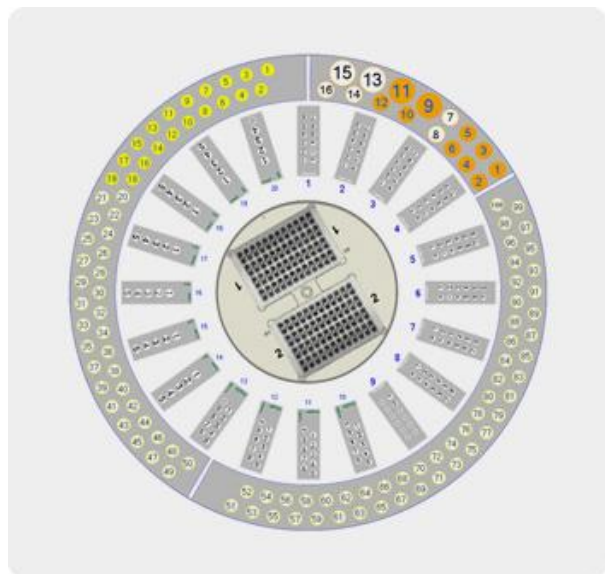
## HIGH THROUGHPUT THANKS TO ITS ARCHITECTURE

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3 independent needles increase processing speed and improve results

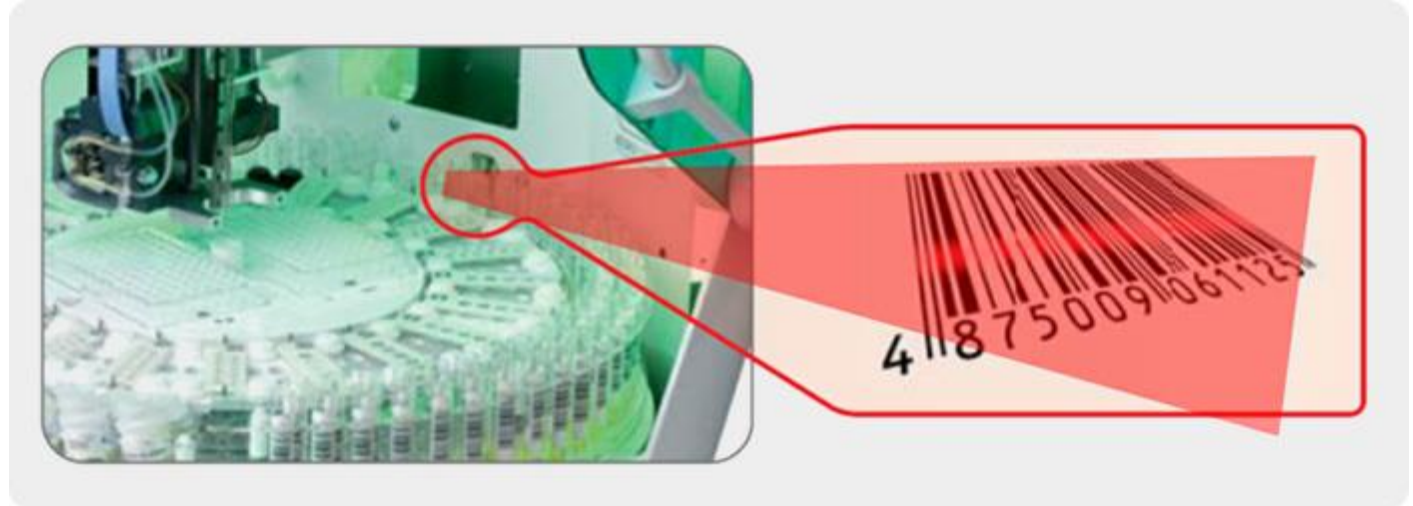


3 independent rings increase processing speed whilst reducing arm movement (i.e. better robustness)



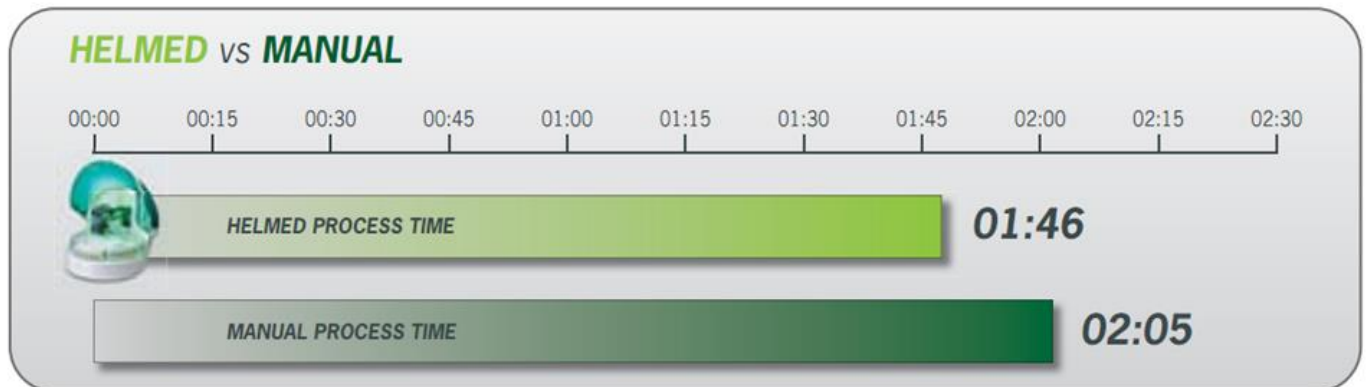
## TRACEABILITY AND EASE OF USE THANKS TO THE INTERNAL BC SCANNER

Eliminate transcription errors for sample ID with the automatic internal BC reader. It will scan your sample tubes IDs and display on the screen so you can create a worklist in just a couple of minutes.

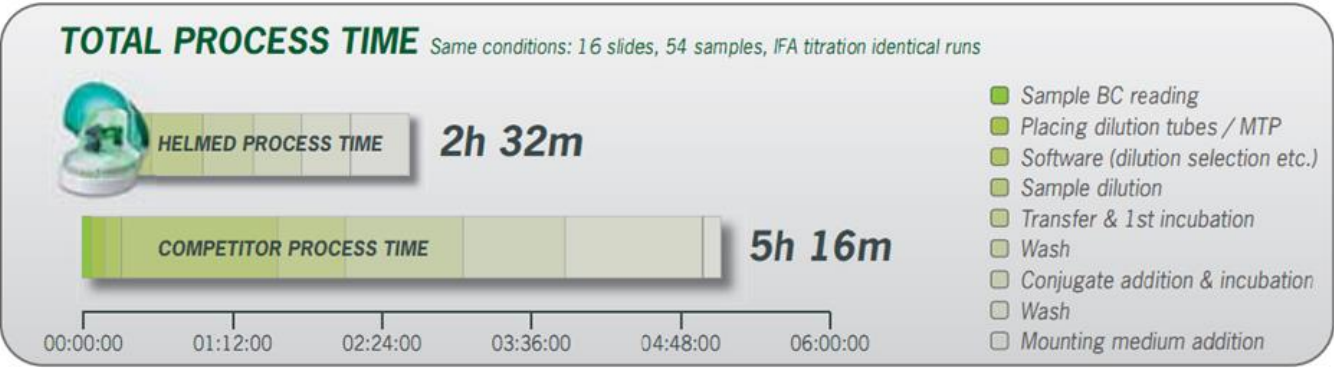


## FASTER RESULTS

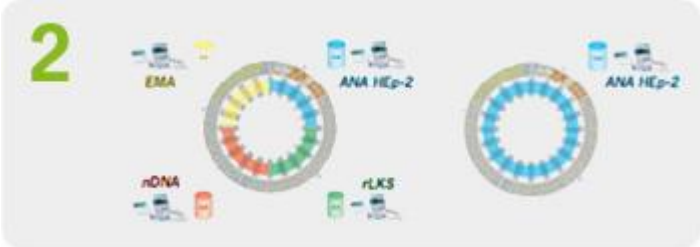
The HELMED takes 48 % less time than a 1 needle (16 slide capacity) instrument thanks to the 3 needles and 3 rings architecture. Identical conditions (no of samples, slides etc.) were used for this comparison:



Results are also faster than manual with less steps (and no transcription required thanks to the internal barcode reader and LIS communication). Reduce the hands on time: time required by the user to load and run the HELMED is 5 minutes vs 1hr to perform it manually.



Place your sample tubes and let the internal barcode reader automatically identify your sample ID. Use your worklist electronically without the need to transcribe long ID numbers.



Select up to 4 different tests and include their lot, expiry dates and operator information for full traceability. Alternatively use one test only for large screenings



Select which tests you would like to run on each sample, or query the LIS to automatically obtain the tests to be performed on each sample.



Load the necessary reagents as indicated in the loading wizard and press run. All IFA steps will be processed automatically including the addition of mounting medium.

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**HELPS+**  
IFA DATA MANAGEMENT SOFTWARE



Export your worklist to the **HELPS+**® **IFA** Data Management software and complete the sample classification of your processed slides with a pattern library. Attach microscope images of a well to your sample results.

## HELMED® HTC - INFECTIOUS SEROLOGY & AUTOIMMUNITY IN ONE SYSTEM



*IFA INCUBATIONS UP TO 40°C FOR UP TO 2HRS PER STEP*

The HELMED HTC Edition (Humidity & Temperature Controlled) is a special HELMED version that has been designed with new chassis modifications that include tight seals and a deep ring to hold distilled water. This allows to successfully process IFA incubations at high temperature of up to 40°C and 2hrs per step by simulating the right environment of a moist chamber eliminating the risk of sample evaporation. By maintaining the optimum humidity and temperature levels Infectious Serology slides can now be also automated as the substrates are not dried during this demanding process.

**DEEP RING** – to be filled with a sponge and distilled water in order to keep humidity during incubation at optimum levels.

**NEW TIGHT SEALS** – special chassis modification brings improved H&T distribution in the chamber.



## SELECT YOUR INSTRUMENT

| HELMED®<br>INSTRUMENT MODELS / APPLICATION                          | Autoimmunity | Infectious Serology<br>(short incubation steps) | Infectious Serology<br>(long incubation steps) |
|---|--------------|---|--|
| HELMED®<br>Classic (REF. HEL-1000)                                  | ✓            |   |  |
| HELMED®<br>Classic (REF. HEL-1000) + Incubator ring (REF. HEL-3511) | ✓            | ✓   |  |
| HELMED®<br>HTC Edition (REF. HEL-1600)                              | ✓            | ✓   | ✓  |

## SELECT THE RACK(S) FOR YOUR SAMPLE TUBE



| HELMED® RACK REFERENCE    | 50 x 12       | 75 x 12       | 75 x 13       | 100 x 12      | 100 x 13      | 100 x 16      | Sarstedt      | Microtube     |
|---------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Sample numbers 1 - 50     | REF. HEL-3540 | REF. HEL-3553 | REF. HEL-3013 | REF. HEL-3509 | REF. HEL-3505 | REF. HEL-3512 | REF. HEL-3029 | REF. HEL-3507 |
| Sample numbers 50 - 100   | REF. HEL-3541 | REF. HEL-3554 | REF. HEL-3014 | REF. HEL-3510 | REF. HEL-3506 | REF. HEL-3513 | -             | REF. HEL-3508 |
| Reagent rack              | REF. HEL-3012 | REF. HEL-3012 | REF. HEL-3012 | REF. HEL-3012 | REF. HEL-3012 | REF. HEL-3012 | -             | REF. HEL-3012 |
| All of the above included | REF. HEL-3542 | REF. HEL-3555 | REF. HEL-3015 | REF. HEL-3517 | REF. HEL-3518 | REF. HEL-3516 | -             | REF. HEL-3519 |

## INCUBATOR RING (UPGRADE FOR STANDARD HELMED HEL-1000 ONLY)



HEL-3511 1x Incubator Slide Holder Ring, 1x IFA SW v2.0 and 1x Disposable incubator ring sponge pack (HEL-3514)

### HELMED® TECHNICAL SPECIFICATIONS

|  |   |
|--|---|
| Sample capacity:                             | IFA: With barcode: up to 120 without barcode: 150   |
| Sample identification:                       | Built-in multi-type barcode reader for sample detection and identification  |
| IFA Slide capacity:                          | Up to 20 slides   |
| IFA test capacity:                           | Up to 4 different tests with 4 different substrates and 4 different conjugates per slide  |
| Samples & reagents support:                  | Customized multi-format extractable racks   |
| Slide support:                               | 26.1 x 76.1 mm (25 mm and 26mm slide thickness within the same run)   |
| Standard sample rack tube size:              | 75 mm to 100 mm / 13mm diameter tubes and microtubes (2ml)  |
| IFA sample dilution capacity:                | Free titration ratio programmable from 1:1 to 1:25.600<br>One step dilution: 1:1 thru 1:160 using a MTP well<br>Two steps dilution: 1:161 thru 1:25.600 using MTP wells   |
| Dilution fluid:                              | User choice of wash solution or dedicated diluent solution in the carousel  |
| Positions available for IFA sample dilution: | 192 (performed in 2x96 MTP)   |
| Pipetting station:                           | 3 low carbon stainless steel needles. 2 fixed and one retractable<br>The 3rd retractable needle provides an independent reagent pipetting channel<br>One peristaltic pump for aspiration of fluids<br>One peristaltic pump for slide well and MTP well washing<br>One 50 µl syringe<br>One 1 ml syringe |
| Level detection:                             | Continuous level tracking by Conductivity   |

|                                 |  |
|---------------------------------|--|
| Precision:                      | CV <3% @ 5 ?l<br>CV <1% @ 10 ?l  |
| Minimum sample volume pick-up:  | 1 ?l   |
| Minimum sample volume required: | 50 ?l  |
| Reagents capacity:              | Modular racks with dynamic allocation of positions<br>Several reagent rack can be combined in the outer ring, each of them with capacity for 16 reagent and controls bottles   |
| Wash solutions:                 | 2 different wash solution  |
| Wash type:                      | Free slide and well wash programming (well by well wash)   |
| Incubator:                      | For slides and MTP programmable from RT to 40°C  |
| Software requirements:          | PC (not included) with 32 & 64 bits compatible processor. Runs on Windows Vista, 2000 & XP, Windows 7  |
| PC communication port:          | Bidirectional USB  |
| LIS link:                       | Uni-directional. HELMED can query LIS to automatically select test & dilution<br>Conforms to ASTM standards<br>Bi-directional with the HELPS+®<br>IFA data management software   |
| Modularity:                     | Up to 3 HELMED systems controlled by a single PC   |
| Programming:                    | User-friendly software interface including an intuitive easy to use slide & test designer that supports different slide thickness, different well formats, multiple substrates in the same slide, multiple sample dispensing points and multiple number of well rows within the same slide |
| Certifications:                 | CE mark and FDA approved   |
| Power consumption:              | Without incubator: 50 Watt max.<br>With incubator: 250 Watt max.   |
| Power supply:                   | Input: 100-240 Volt, 50-60 Hz  |
| Dimensions:                     | 57cm x 62cm x 75cm   |
| Instrument weight:              | 25 kg  |