rigelmedical.com

CMC
INGENIERIA MEDICA

World class biomedical testing solutions for healthcare environments.

Passionate about patient safety.

RIGEL MEDICAL
TESTED, TRUSTED... WORLDWIDE.

Introducing Rigel Medical...
Making our world a safer place.
Every. Single. Day.

CMC
INGENIERIA MEDICA

Rigel Medical are renowned globally as a designer and manufacturer of reliable, portable and compact biomedical test equipment.

As metrology specialists, for almost four decades our innovative testing solutions have been mitigating risk worldwide in healthcare environments. Our products ensure that critical medical equipment is safe to use throughout the device's life-cycle.

High standards of quality and a dedication to excellence are at the heart of our unique end-to-end offering.

Whether it is manufacturing, design, product training, or our outstanding technical support, we give our customers the quality assurance and satisfaction they require. We are a registered ISO 9001 company.

Our committed team and large network of global distribution partners maintain a high level of quality from products to services.

That is why biomedical and clinical engineers all over the world have the confidence and peace of mind - knowing that, with Rigel Medical, they are not only complying to industry standards, and verifying manufacturers' specifications - they are keeping countless patients, visitors, and staff safe. Every. Single. Day.

Contents

Introducing Rigel Medical	2
The complete biomedical safety testing package	6
Tested, trusted... worldwide	8
World class biomedical testing solutions	10
Service & calibration	12
Electrical safety analyzers	14
Available plug & socket types	20
Performance analyzers	22
Vital signs simulators	26
Med-eBase	28
Accessories	29
Education, education, education...	30

The complete biomedical safety & performance testing package...

At Rigel Medical you will find the complete package of cutting edge technology... and everything that goes with it.

Our portfolio of trusted electrical safety analyzers, vital signs simulators, performance analyzers and ventilator analyzers are portable, ergonomic and reliable. Expediting workflow, fulfilling compliance requirements, reducing test times and increasing productivity.

But that's not the full story, every one of our innovative test solutions comes with a full package of advice and support - before and after purchasing.

Product Specialists
We have sales representatives across the world who can assist you with your product selection, ensuring you get the right solution to meet your testing requirements.

Education and Training
Our team of application specialists are continually delivering educational training programs, seminars and webinars to empower our customers in the field of biomedical engineering.

Ongoing Technical Support
We have an engaged team and global distribution partners delivering agile after sales care and excellent customer support.

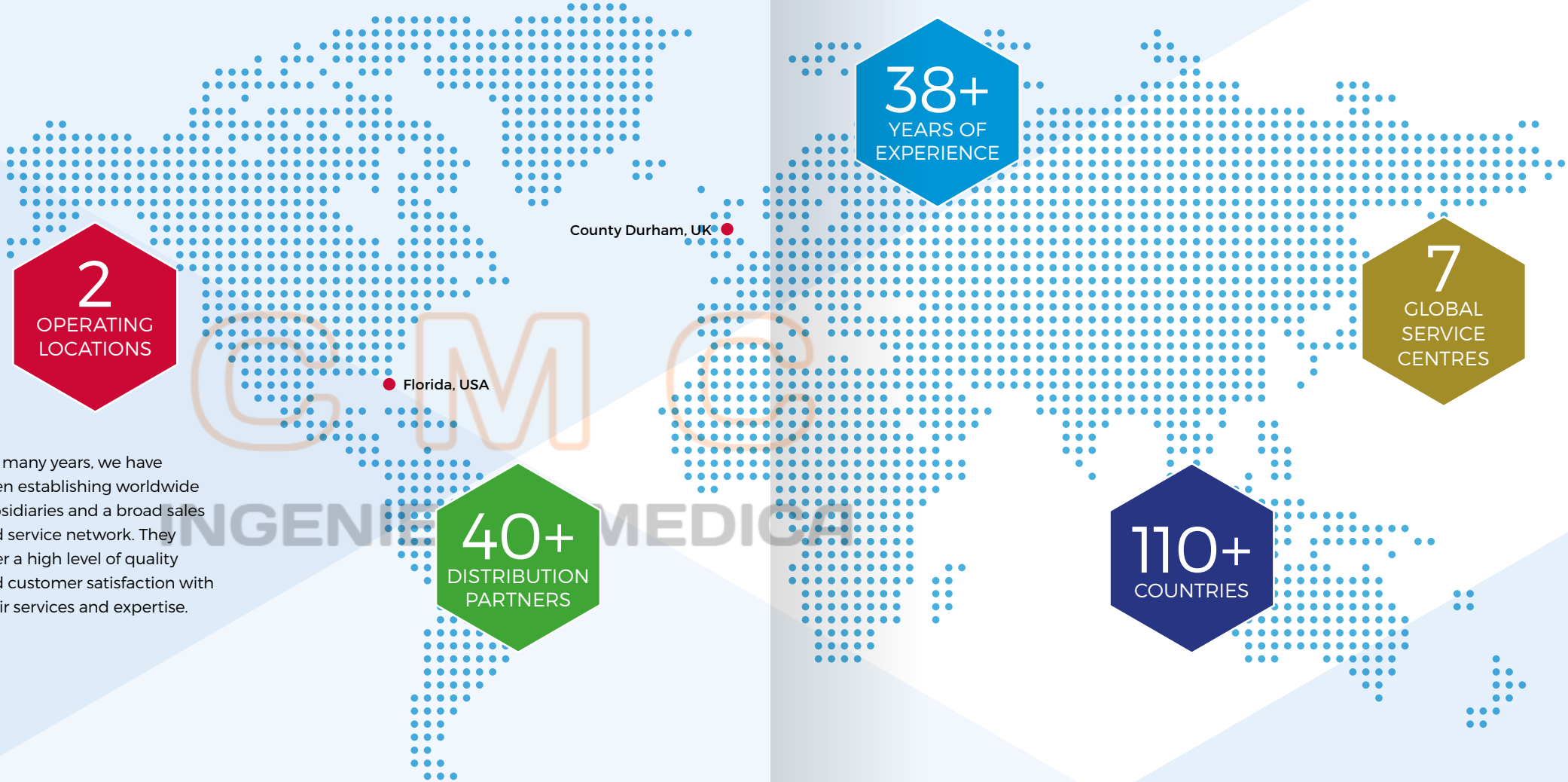
Service and Calibration
We have a number of dedicated service and calibration centres across the globe who can help maintain your Rigel test equipment, most of which are ISO 17025 accredited.

CPD Certification
As the only UK biomedical test equipment company to achieve CPD (Continuing Professional Development) certification, we're supporting the professional training requirements of our UK and international customers.

INGENIERIA MEDICA

Tested, trusted... worldwide.

We are proud to deliver premium biomedical test equipment to customers across the world who share our appreciation of quality and our commitment to patient safety.



2 OPERATING LOCATIONS

38+ YEARS OF EXPERIENCE

7 GLOBAL SERVICE CENTRES

40+ DISTRIBUTION PARTNERS

110+ COUNTRIES

For many years, we have been establishing worldwide subsidiaries and a broad sales and service network. They offer a high level of quality and customer satisfaction with their services and expertise.

INGENIE MEDICA

World class biomedical testing solutions for healthcare environments...

Whether you're a manufacturer of electrical medical equipment, a biomedical engineer or a healthcare technician working in a clinical engineering setting - we have a test solution for you.

Electrical Safety Analyzers

International standards and compliance are at the heart of all our products. Our electrical safety analyzer range is synonymous around the world as the "go-to-devices" to ensure the electrical safety of medical equipment. They save lives.

Vital Signs Simulators

Accurate physiological simulation is key when testing patient monitor systems. Our range of vital signs simulation tools cover all the necessary aspects of vital signs parameter testing.

Performance Analyzers

Our comprehensive performance analyzers can establish if medical equipment is fit for purpose. It is integral that critical life-support equipment, electrosurgical units, or intravenous technologies are accurate and performing to their requirements. Our defibrillation, electrosurgical and infusion pump analyzers have expansive testing capabilities, giving you the peace of mind that specifications are being met.

Ventilator Analyzers

Biomedical engineers need accurate tools to test, verify and calibrate their anaesthesia machines, endoscopic insufflators, gas flow meters, respirators, suction pumps, pressure gauges and ventilators. Our gas flow analyzers and ventilator testers guarantee provisions for precision and accuracy in testing and calibration.

INGENIERIA MEDICA

Service & calibration...

At Rigel Medical, we know how important it is to ensure the accuracy and reliability of your biomedical test equipment, so our support doesn't end with a purchase.

We help you to take care of your test and measurement equipment, ensuring all your calibration, service and repair requirements are met.

Our global network of ISO 17025 accredited service centres help us to maintain fast turnaround times. Many offer on-site capabilities, providing service, maintenance, calibration, repair and spare parts so you get your equipment back in service as quickly as possible.

Maintenance contracts and extended warranty agreements are also available.

Our team of skilled engineers use state-of-the-art equipment, to ensure a reactive, high quality service and a timely turnaround of your test equipment.

Extend the life and quality of your instruments by contacting us for a no-obligation quote, wherever you are in the world.

To find out if we have an approved service centre in your area, visit: **rigelmedical.com/service-centre**

MERIA MEDICA

Our products...

Electrical Safety Analyzers

Ensuring patient and operator safety with world-leading portable test solutions.

Rigel 288+

Accurate and fast electrical safety tester.

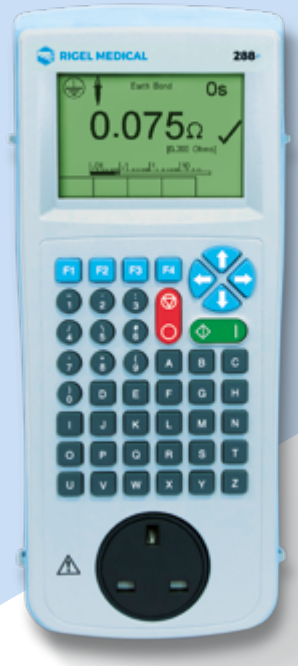
The **Rigel 288+** is the first truly handheld medical electrical safety tester to combine the features of an automatic / manual tester with data logging and asset management capability. Operation is through a menu driven GUI. A 5,000 record memory and Bluetooth connectivity make this an effective mobile unit.

Features include:

- Light, handheld, battery operation*
- Conforms to IEC 62353 / 60601 / VDE 0751 / NFPA-99 / AS/NZS 3551
- Memory for up to 5,000 devices
- Bluetooth communication
- Full, semi-automatic and manual testing
- Straightforward data transfer with the Rigel 288+ Downloader app

* Battery operation of "stay alive", data transfer, earth continuity testing, insulation testing, and touch leakage testing.

Find out more at: **rigelmedical.com/288**



Rigel 288+ Downloader app

Transfer medical device test data straight from your pocket.

The **Rigel 288+ Downloader** is an app built to make paperless and wireless data transfer possible for biomedical and clinical engineers performing electrical safety tests, using just a smartphone or tablet.

Features include:

- Allows you to download all your test results in one PDF document
- Free downloadable app for Android devices with no hidden add-ons
- Easy to use
- Available worldwide

Find out more at:
rigelmedical.com/downloaderapp

GET IT ON Google Play

62353+

Accurate and fast electrical safety tester.

The **62353+** is a cost-effective automatic safety analyzer dedicated to the IEC 62353 standard for electrical safety testing of medical devices. Offers automatic test sequences, data storage, and PC download capabilities.

Features include:

- Light, handheld, battery operation*
- Conforms to IEC 62353 / NFPA-99
- Fully customisable test sequences
- Easy data entry and storage
- PC download
- Full, semi-automatic and manual testing

* Battery operation of "stay alive", data transfer, earth continuity testing, and insulation testing.

Find out more at: **rigelmedical.com/62353**

SafeTest 60

A robust medical safety analyzer.

The Rigel **SafeTest 60** is a rugged, reliable and dedicated medical safety analyzer, ideal for testing high volumes of medical and laboratory equipment that does not need patient lead testing. With a large colour display and colour-coded user interface, it's easy to select the required tests with a single key press. A fast selection of the test routine makes the testing process speedy and dependable.

Features include:

- Compact, rugged and portable design
- Ready to use, box to bench
- Fast step-through of test routines with minimised power breaks
- Test to national and international standards
- Manual control of fault conditions
- Accurate high current, low energy bond testing
- Secondary earth warnings to ensure valid tests

Find out more at: **rigelmedical.com/safetest60**

SafeTest 50 (USA only)

A robust medical safety analyzer.

The **SafeTest 50** is a robust and reliable medical safety analyzer, ideal for testing high volumes of medical and laboratory equipment that does not need patient lead testing.

With a colour-coded user interface, it's easy to select the required tests with a single key press. Full manual control offers the benefit of executing only those specific tests that are required, making testing simple, easy and fast.

Features include:

- Compact, rugged and portable design
- Ready to use, box to bench
- Fast step-through of test routines with minimised power breaks
- Test to national and international standards
- Manual control of fault conditions
- Accurate high current, low energy bond testing
- Secondary ground warnings to ensure valid tests

Find out more at: **rigelmedical.com/safetest50**

EMC INGENIERIA MEDICA

SafeTest 99 (USA only)

A robust medical safety analyzer.

The **SafeTest 99** is a compact and reliable electrical safety analyzer which allows you to carry out patient lead leakage testing in accordance with NFPA-99. It features accurate high current, low energy ground continuity testing with secondary ground warnings to ensure valid tests.

Features include:

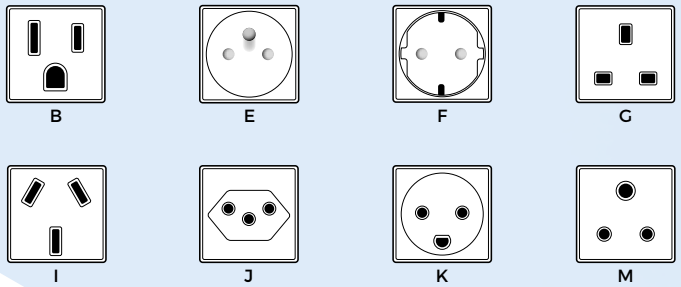
- Fast step-through of test routines with minimised power breaks
- Manual control of fault conditions
- Clear and vibrant colour display
- Universal voltage input
- Patient lead adapter box included.
- Ready to use, box to bench
- Supplied with protective carry case

Find out more at:
rigelmedical.com/safetest99

	288+	62353+	SafeTest 60	SafeTest 50	SafeTest 99
Test Standards / Codes	IEC 60601 IEC 62353 NFPA 99 IEC 61010	IEC 62353 NFPA 99	IEC 60601 IEC 62353 NFPA 99 IEC 61010	IEC 60601 IEC 62353 NFPA 99 IEC 61010	NFPA 99
Voltage input	120V or 230V	120V or 230V	90 - 230V	90 - 230V	90 - 230V
Insulation test	50, 100, 250, 500V	50, 100, 250, 500V	500V		
Patient Leads	10	2			10 combined
Single Fault Conditions	•	•	•	•	•
Mains on applied part	•	•			
Pass/fail limits	•	•			
Point to point measurement	•	•	•	•	•
Battery operation	•	•			
Communications	BT/RS232 to USB	RS232 to USB			
Memory	•	•			
Customisable test sequences	•	•			
Android App	•				
Secondary Ground Alert	•	•	•	•	•
TN/IT detection	•	•	•	•	•
Compatible with Med-ebase software	•	•			
Accessories available at	rigelmedical.com/288	rigelmedical.com/62353	rigelmedical.com/safetest60	rigelmedical.com/safetest50	rigelmedical.com/safetest99

Plug & socket types available

Our electrical safety analyzers are trusted by biomedical and calibration professionals worldwide and are available in a number of different plug and socket types.

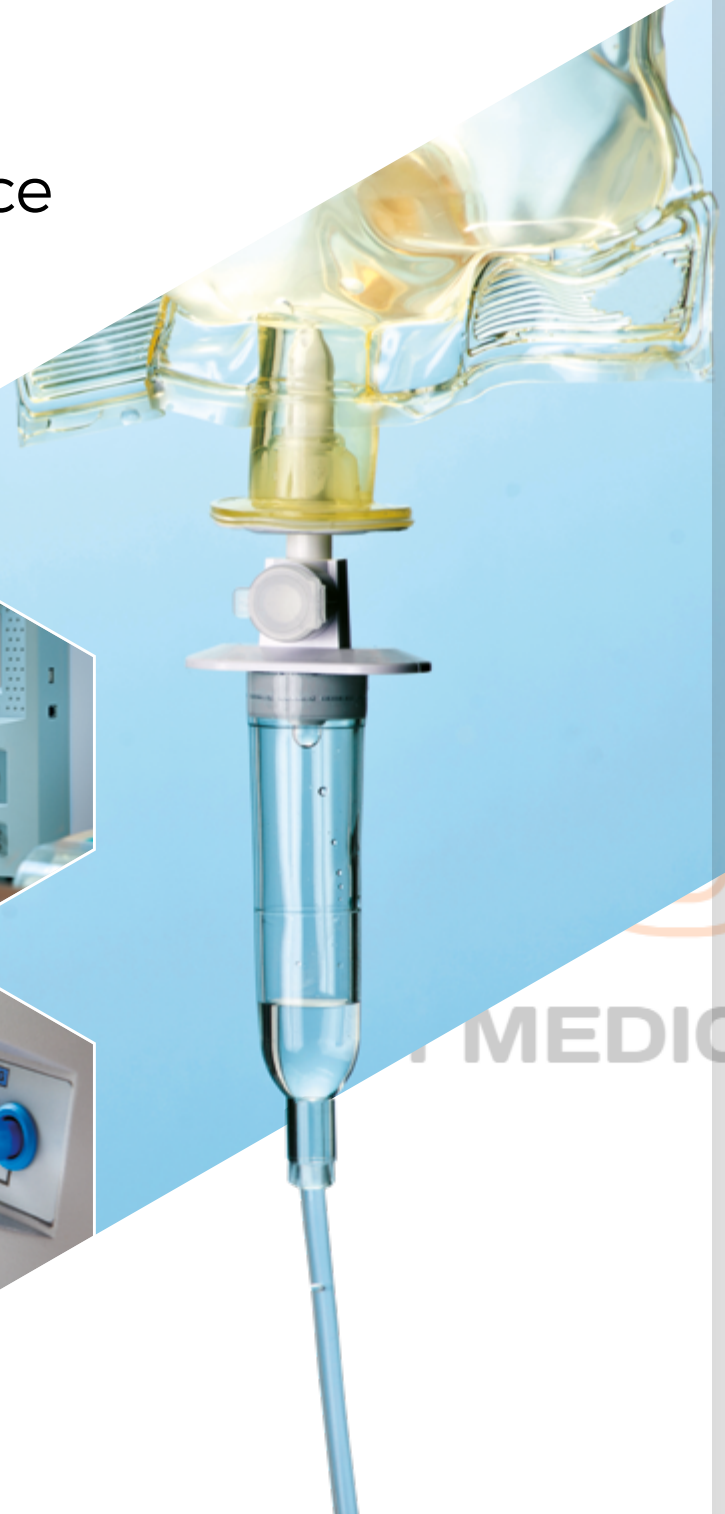


Plug/Socket Type	288+	62353+	SafeTest 50	SafeTest 60	SafeTest 99
Type B	•	•	•		•
Type E	•	•		•	
Type F	•	•		•	
Type G	•	•		•	
Type I	•			•	
Type J	•	•			
Type K	•	•		•	
Type M	•				

Our products...

Performance Analyzers

The confidence your medical equipment is meeting specifications.



Multi-Flo

Market leading infusion pump analyzer.

The market defining **Multi-Flo** infusion pump analyzer is a portable instrument to accurately and swiftly verify the performance of all infusion devices. Offering instantaneous flow and available in 1, 2 and 4 individual channel configurations.

Features include:

- IEC 60601-2-24 compliant
- Instant flow and pressure
- Compatible with all infusion devices
- On-screen flow graphs
- On-board data storage

Find out more at:
rigelmedical.com/multiflo

Uni-Therm

High current electrosurgical analyzer.

The **Uni-Therm** offers the latest technology in high frequency power measurement. It's small, easy-to-use and has a large colour display and innovative navigation, making this a fast, efficient test tool for testing the performance of ESU generators.

Features include:

- HF leakage test
- Power distribution from 5 to 5115Ω
- Current measurement up to 6A RMS continuous
- Return plate alarm test (REM/CQM)
- On-board data storage

Find out more at:
rigelmedical.com/unitherm

UniPulse 400

An easy-to-use defibrillator analyzer with pacer.

The **UniPulse 400** is designed to comprehensively test all defibrillators accurately and efficiently. The large vibrant colour screen will display both test results and waveforms in amazing detail. The dedicated fast keys and simple to use operating system enables biomedical / clinical engineers to select the relevant test function in seconds.

Features include:

- Light handheld, battery operation
- Pacer functionality
- Compatible with monophasic, biphasic and pulsed waveforms
- Reliable and non-inductive test load of 50Ω
- Patient simulator with ECG hi output

Find out more at:
rigelmedical.com/unipulse

VenTest Series

High-performance gas flow analyzers for ventilator measurement and calibration.

The **VenTest** measures flow, pressure, temperature, humidity and O2 concentrations bi-directionally. The adult, paediatric and high frequency ventilation measuring modes make the VenTest the ideal calibration tool for all ventilators, anaesthesia machines and spirometers.

Features include:

- All-in-one analyzer
- Measures and calculates all common respiratory parameters
- Compatible with gas standards and gas types
- Built-in data storage with optional software for total traceability
- USB, RS-232 and external trigger interface
- Portable with battery operation

Find out more at: **rigelmedical.com/ventest**

Our products...

Vital Signs Simulators

Because accurate patient simulation tools mean accurate patient monitors.

INGENIERIA MEDICA

PatSim 200

A cost-effective, easy-to-use patient simulator.

The **PatSim 200** is designed to make every patient simulation quicker by utilising a home and recall function. Save your five most used simulations, and with universal ECG studs and mini DIN connectors, this is the most cost and time-effective unit on the market.

Features include:

- An instant low-cost replacement
- Simple, fast navigation
- Lightweight, compact unit with rechargeable Li-Ion battery
- Recall most used simulations
- Foetal / maternal monitoring

Find out more at:
rigelmedical.com/patsim200

UNI-SiM

The most complete vital signs simulator.

The Rigel **UNI-SiM** verifies the performance of all vital signs on any type of vital signs monitor, ensuring monitors are provided accurate data for the correct treatment, diagnoses and monitoring of patients.

Features include:

- Small and compact
- Fast and accurate testing - multiparameter tests makes testing quicker and more controlled every time
- Monitors are checked with physiologically correct and synchronised simulations, the closest thing to a real human being

Find out more at:
rigelmedical.com/unisim

Our products...

Med-eBase

Rigel Med-eBase is our flagship software product. It provides asset management of test data to and from the Rigel Medical test equipment range, producing advanced results and data reports with an option to store your data on a local or remote database structure.

It allows the user to easily manage the test data to and from the Rigel Medical test equipment range. Sort functions and comparison of test results, combined with database functions, will allow the user to upload data for fast re-testing of stored assets.

To find out more about Med-ebase, please visit:
rigelmedical.com/med-ebase

Our products...

Accessories

We offer a wide range of accessories to maximise the potential of your Rigel products, and to make sure you are covered for any eventuality.

To see the wide range of accessories that we offer, please visit:
rigelmedical.com/accessories

Education, education, education...

As experts with almost 40 years experience in patient safety, we're keen to pass on our knowledge, offering help and advice through free educational webinars and guides.

Webinars

We regularly host free-to-attend educational webinars on certain medical device testing topics.

You can find all of our upcoming webinars at **rigelmedical.com/events** and watch our past webinars at **rigelmedical.com/webinars**

Most of our live webinars are CPD certified, meaning you can get 1 hour towards your Continuous Professional Development portfolio. Please look for the CPD mark when signing up to see if that webinar is eligible.

Guides

We have created numerous guides to help you understand the best practices when testing different types of medical equipment, including defibrillators, electrosurgical generators, and patient simulators. We have also created guides on the IEC 60601 and IEC 62353 electrical safety testing standards.

To view all of our available guides, please visit **rigelmedical.com/guides**

INGENIERIA MEDICA

Passionate about patient safety.

RIGEL MEDICAL

TESTED, TRUSTED... WORLDWIDE.

Head Office

15 -18 Bracken Hill, South West Industrial Estate, Peterlee,
County Durham, SR8 2SW, United Kingdom

Tel: +44 (0) 191 586 3511

USA Office

Seaward Group USA, 6304 Benjamin Road, Suite 506
Tampa, FL 33634, United States

Tel: +1 (813) 886-2775

Email: sales@rigelmedical.com

rigelmedical.com

INGENIERIA MEDIC

Rev 3.0