unisensor
DIAGNOSTIC ENGINEERING

EMPOWERING DIAGNOSTICS:

Your Best Partner for Cutting-Edge Development & Manufacturing in Belgium

Unisensor:
Your Strategic CDMO Partner for Diagnostic

Leading the Way in Diagnostic Innovation

Welcome to the world of Unisensor, your indispensable ally in pushing the boundaries of diagnostic technology. As a recognized and pionneer leader in the development and production of diagnostic solutions for the industry, we are delighted to present our CDMO - Contract & Development Manufacturing Organization offering.

Our ambition is to provide you with our state-of-the-art infrastructure capabilities, honed and refined over the years.

Your Vision, Our Mission

We understand that each client and project is unique. That's why our approach is highly personalized, aiming to precisely meet your specific needs. Whether for large-scale production or tailor-made solutions, our team of experts is ready to take on the challenge and turn your vision into reality.

We invite you to discover, through this brochure, how our expertise can become the cornerstone of your success. At Unisensor, we are more than service providers; we are your strategic partner, dedicated to excellence in the field of diagnostics.

Welcome to the future of diagnostics, welcome to Unisensor.

Our Areas of Expertise

At Unisensor, we take pride in offering you a complete range of CDMO services, covering four major areas of expertise:

Lateral flow Immunoassays:

Turn rapid diagnostics into reality with our advanced immunoassay solutions. Our rapid tests are defined by precision, speed, and ease of use, tailored to meet your specific needs.

Colloidal Gold and Gold Conjugation:

Harness the power of high quality colloidal gold with Unisensor. Our cutting-edge conjugation technologies open the doors to unprecedented sensitivity and robustness in your diagnostic applications.

Molecular Biology:

Redefine diagnostic accuracy with our innovative molecular biology tests. Discover the efficiency of LAMP PCR for rapid and reliable results, suited to the modern era.

Devices - Diagnostic Instrument:

Explore Unisensor's expertise in developing diagnostic instruments. Combining cutting-edge technology and user-friendliness, our hardware and software solutions are designed to maximize the efficiency and accuracy of your diagnostics.

First Domain of Expertise
Lateral flow Immunoassays: Excellence in Diagnostic by Unisensor

A Legacy of Excellence in Diagnostic

For more than 25 years, Unisensor has established itself as an undisputed leader in the diagnostic field. Our unparalleled expertise, coupled with state-of-the-art manufacturing infrastructure, positions us as your preferred partner for superior quality diagnostic solutions. We are dedicated to innovation and quality, guaranteeing products and services that not only meet but exceed your expectations.

Key Strengths

Pioneer Expertise:
With 25 years of experience and fifteen millions annual tests production, Unisensor is synonymous with reliability and precision. Our expertise spans the entire spectrum of diagnostics, across more than 50 effective products in the market.

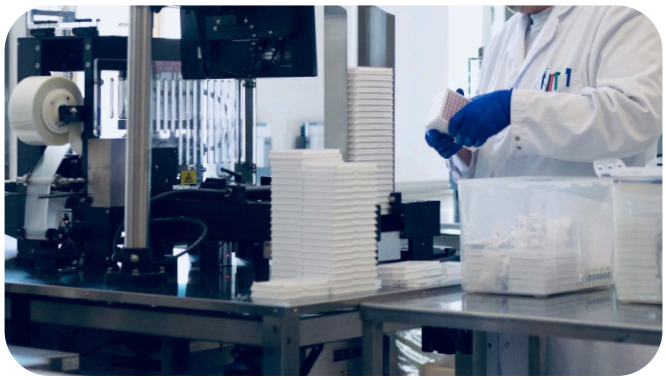
State-of-the-Art Infrastructure:
Our manufacturing unit is a technological gem, equipped with cutting-edge coating, lamination, spotting, and lyophilization machines. This enables us to respond with agility and precision to all your production requirements.

Advanced Quality Control:
At Unisensor, quality is not an option but a guarantee. Our quality control systems, including 100% camera-based verification, ensure the absolute compliance and reliability of every product we produce.

Services Offered

Lateral Flow Strips:

Specialized in large-scale production, our high-speed coating lines are the key to rapid and precise diagnostics. With a 100% camera control, our lateral flow strips represent excellence in simplicity and efficiency.



96-Well Microplates:

Our filling and sealing facilities use advanced technologies ensuring the integrity and precision of each sample. The 96-well microplates are filled with a precision that sets industry standards.

Vials:

Our filling, capping, crimping and labelling process is designed for perfection. Each (3 mL) vial is treated with meticulous attention, ensuring unparalleled quality and reliability.

Lyophilization:

With four state-of-the-art lyophilizers (20m² shelfs), we ensure extended shelf life for your filled products without compromising their quality or efficacy.

Excellence Beyond Expectations in Diagnostics

At Unisensor, we don't just meet your needs; we are committed to surpassing them. Choose expertise, quality, and innovation. Contact us today to discover diagnostic solutions that redefine industry standards.

Second Domain of Expertise
Colloidal Gold and Gold Conjugation

NANO FLOW
Sensitivity - Stability - Consistency

Innovative Gold Nanoparticle Technology

As a specialist in the development and large-scale production of unparalleled gold nanoparticles and gold conjugates, Nanoflow, a Unisensor brand, is at the forefront of innovation. Our expertise ranges from the use of antibodies, proteins, DNA, small molecules, and more, to bring you revolutionary solutions in diagnostics and beyond.

Why Choose Unisensor?

Exceptional Quality:

Our gold nanoparticles are renowned for their unmatched mono-dispersity - two to three times more consistent than those of competitors, with perfect sphericity. This ultra-sphericity reduces aggregation and increases stability.

Extended Validity:

We offer an 18-month shelf life, surpassing the usual 6 to 12 months offered, ensuring long-term reliability.

Optimal Surface:

The perfect dispersion of our ruby-red gold nanoparticles provides an unparalleled surface for bio-conjugation. This is particularly beneficial for antibodies, allowing better attachment and resulting in superior sensitivity in lateral flow diagnostic tests.

Rigorous Quality Control:

Each batch undergoes meticulous characterizations via TEM for each batch, UV-vis, and DLS, and is approved based on strict QC criteria, ensuring unparalleled product quality.

Custom Conjugation Services:

From development phase to large-scale production, our unique conjugation process limits nanoparticle aggregation, offering the highest quality and sensitivity conjugates.

Specificity and Reproducibility:

Our conjugates exhibit clear membrane background and improved specificity on test lines. Through our automated processes, we guarantee batch-to-batch reproducibility of our unique gold nanoparticles and conjugates.

Large-Scale Production Capacity:

Capable of producing up to 38 L OD10 of gold bio-conjugate batches at a highly competitive price.

Your Nanotechnology Partner

Benefit from Unisensor's expertise for your nanoparticle and gold conjugate needs. With our cutting- edge facilities and commitment to excellence, we are ready to enhance the performance and sensitivity of your products.

Third Domain of Expertise
Excellence in Molecular Biology

Discover the Vanguard of Molecular Biology with Unisensor

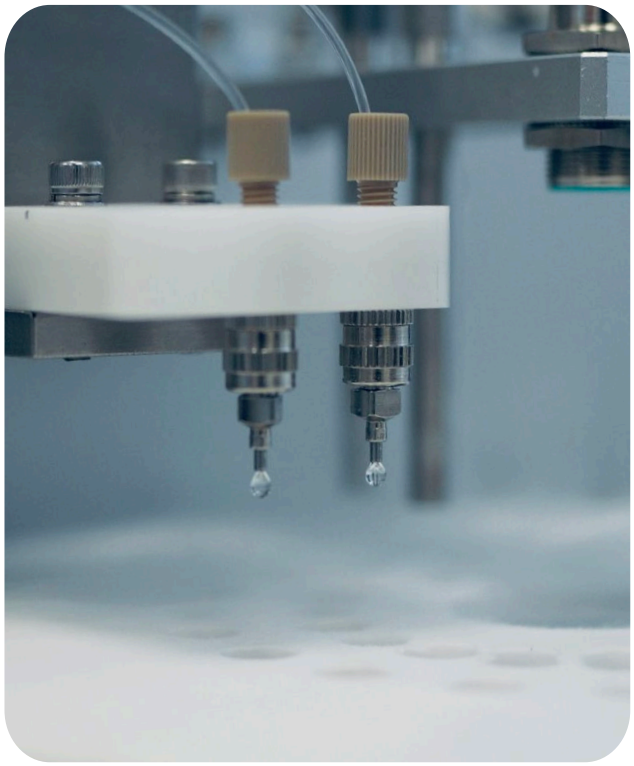
Unisensor, your trusted partner, presents its expertise in the development and production of point-of- care tests, leveraging the LAMP PCR method. We offer our highly qualified team and state-of-the-art infrastructure to meet your most demanding needs.

Our Technical and Scientific Expertise

Our expertise covers the entire development process, from meticulous primer design to careful enzyme selection. We excel in bead manufacturing and lyophilization, as well as in the development and production of specialized buffers. At Unisensor, we are perfectly equipped to handle your existing products or to closely collaborate with you, from initial design to final product realization.

State-of-the-Art Infrastructure

Our facilities include an ISO 6 room (PCR1) with controlled humidity, ULPA air filtration, equipped with a personal airlock air shower, and a material airlock, ensuring an environment perfectly suited to PCR requirements. We also offer temperature-controlled storage spaces, ranging from 4-8°C to -80°C, complemented by laboratory hoods for optimal working conditions.



Innovative Equipment and Production Capabilities

To precisely meet your needs, our state-of-the-art equipment includes an automatic liquid nitrogen freezing machine, capable of processing up to 5000 beads per hour. Our certified Level 2 laboratory room (PCR2) is equipped with hoods and a rigorous access control system, while our dedicated PCR3 room features next-generation Q-PCR and LAMP- PCR readers, as well as a bacterial cell counter. Our production capacity is optimized by the use of 4 high- quality Martin-Christ freeze dryers, allowing rapid and efficient filling of vials for lyophilized products, rapid filling and sealing of 96-well microplate, as well as frozen beads.

Achieve Success in Molecular Biology with Unisensor

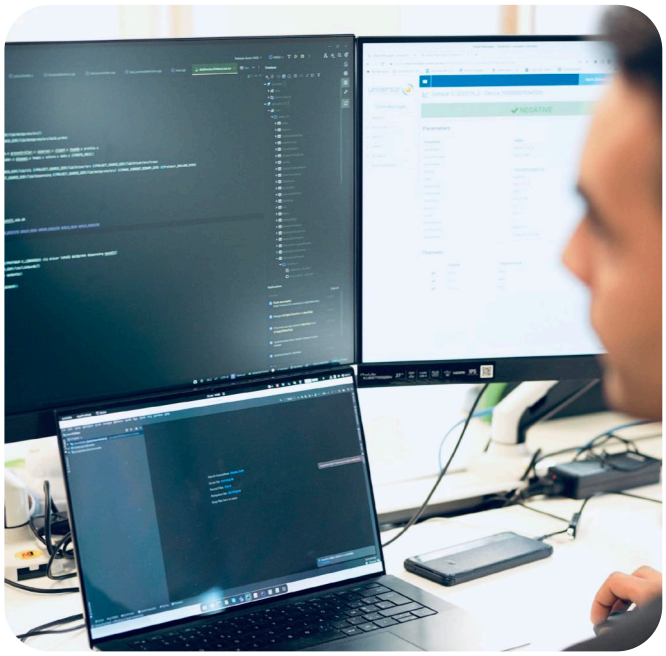
By choosing Unisensor, you opt for a reliable, innovative, and cutting-edge collaboration. Our commitment to excellence and sophisticated infrastructure position us as the ideal CDMO partner for your molecular biology projects. Trust Unisensor to turn your challenges into opportunities and take your point-of-care tests to new heights of success.

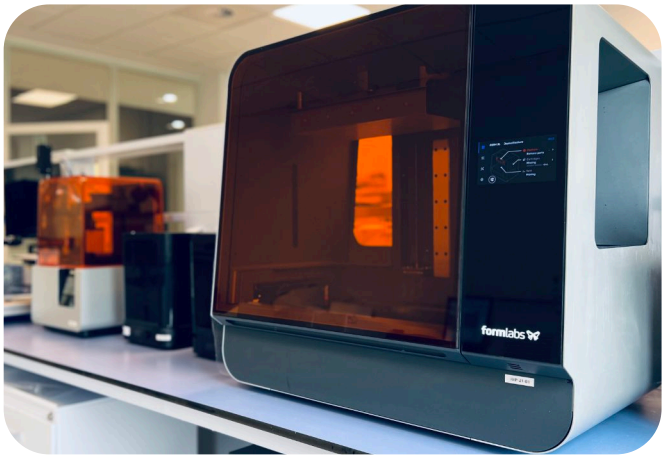
Fourth Domain of Expertise

Interpretation Devices and Data Processing Platforms for Diagnostic Tests

Unisensor: Your Expert Partner in Innovative Diagnostic Devices

With extensive experience, Unisensor is an expert in the development and production of diagnostic devices, offering a complete range of innovative solutions and services. We excel in providing advanced diagnostic devices, including lateral flow readers with cloud connectivity, ensuring remote control combine with efficient and secure data management.





Our Distinctive Strengths

Advanced Lateral Flow Readers:

We provide cutting-edge solutions for lateral flow tests, ensuring accuracy and reliability.

Cloud Connectivity and Remote Management:

Our devices integrate cloud connectivity features, allowing easy updates, remote control, and efficient data management.

Secure Data Management:

We offer robust data management solutions, ensuring the security and accessibility of sensitive information.

Tailored Customization:

Our services include device customization, both at the hardware and software levels, to perfectly meet the needs of each client.

Expertise in Micro/Macro Fluidics:

Our expertise in micro and macro fluidics enables the development of precise systems for fluid manipulation, crucial in diagnostic processes.

Our In-House Design Office:

Equipped with a FabLab, allows for rapid design and prototyping, benefiting from a strong network of suppliers for optimal component quality and availability.

Speed of Execution and Agile Methodology:

With a diverse range of professional profiles internally, we guarantee fast and efficient project execution, adopting an agile approach for maximum flexibility in product development.

Compliance and Certification:

All our products comply with current regulations, including CE certification, ensuring suitable and secure solutions.

Synergy and Biochemical Collaboration:

Located in close proximity to biochemical experts, we benefit from synergy and close collaboration, enriching our expertise panel and our ability to meet the complex challenges of diagnostics.

Unisensor CDMO: Your Partner for Success

Welcome to Unisensor CDMO, where excellence meets innovation. With almost 30 years of industry-leading expertise, we have established ourselves as a trusted partner for our customers. We also provide top-tier contract development and manufacturing services.

At Unisensor CDMO, we go beyond the ordinary. Our cutting-edge equipment and state-of-the-art infrastructure enable us to deliver exceptional results that exceed expectations. We are proud to be at the forefront of technological advancement, constantly investing in the latest tools and resources to ensure our clients' success.

Customers partners can leverage these capabilities without having to make significant capital investments themselves. With established processes and ressources in place, we can often accelerate the time to bring your product to market.

Our commitment to quality is unwavering, as evidenced by our ISO 9001:2015 certification that guarantees the highest standards of operation.

But we don't just stop at quality – we are also champions of sustainability. Our green policies drive our operations, ensuring that we conduct business in an environmentally responsible manner. When you partner with Unisensor CDMO, you are not just choosing a service provider; you are choosing a partner who cares about the planet and the future.

Experience the difference with Unisensor CDMO. Our meticulous project management approach follows the 5 phases of product development and launch, guaranteeing a seamless process from start to finish. Let us help you bring your vision to life and take your product to market with confidence.

Contact us today to discover how Unisensor CDMO can elevate your project to new heights. Your success is our success, and we are here to make it happen.

We are excited to invite you to an exclusive visit of our state-of-the-art facilities, where cutting-edge technology and innovation come to life. We will guide you through the facilities to give you a comprehensive view of our advanced infrastructure and the unique solutions we can offer.

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