



Your Reliable Manufacturing Partner



ABOUT **1st BASE**

1st BASE is a Manufacturer Brand owned by Axil Scientific.

The manufacturing of 1st BASE products and services was established since 2002. Over the years, we have rapidly increased our manufacturing competencies to produce high quality products, and have successfully build 1st BASE as a leading brand in the life sciences industry in Singapore.

We have a strong product management team who specialises in developing start-to-finish solutions catered to your needs. Our manufacturing facility spans across 1300sqm, comprising multiple ISO 7 and ISO 8 Cleanrooms, and is equipped with advanced automation and robotics technologies.

With the right resources to handle large- and small-scale projects, you can trust us to produce the highest quality products on your behalf!

WHY Partner with Us?

- Access to first-rate scientific and manufacturing expertise
- Product customisation and state-of-the-art facilities
- Industry-leading product quality and reliability for consistent product performance
- Flexible shipping options with on-time delivery and continuity of supply
- Robust quality systems and materials management capabilities
- High-quality products manufactured under cGMP, ISO 13485:2016 and ISO 45001:2018
- Strict control of confidential information



Regulatory Compliance



Comprehensive Capabilities



Large Manufacturing Capacity



Experienced Product Management Team



Advanced Equipment & Infrastructure

CONTRACT MANUFACTURING FOR EVERY STAGE OF YOUR JOURNEY

PHASE 01

PROTOTYPING & PILOT STUDY

- Requirements & Specifications
- Materials Sourcing
- Analytical QC & Preparation Logs
- Client Evaluation & Functional Testing

PHASE 02

VERIFICATION & VALIDATION

- Development Of Quality Control Procedures
- Process Risk Management
- Process Design & Validation

PHASE 03

PRODUCTION

- Full Scale Production
(Batch Release QC)

Fully Documented Processes



OUR QUALITY STANDARDS | cGMP, ISO 13485, bizSAFE 3



We are a contract manufacturer certified under the cGMP, ISO 13485:2016 and quality management system.

Our facilities have been assessed and certified by SOCOTEC Certification International as conforming to cGMP and customer requirements based on 21 CFR 820 for the manufacturing, kit assembly, and distribution of molecular biological reagents, buffers and culture media for the use in in-vitro diagnostic medical devices. This certification assures proper design, monitoring, and control of our manufacturing processes and facilities.

Our robust quality management system encompasses a comprehensive scope for the biotech and medical device industry:

- Regulatory Compliance
- Traceability and Documentation
- Risk Assessment and Evaluation
- Verification and Validation of Products and Processes
- Contamination Control Requirements
- Production Requirements for Cleanliness of Products
- Production Requirements for Sterile Medical Devices

bizSAFE STAR accreditation was granted in recognition of our efforts in managing health and safety hazards in and around our workplace, and is further testimony to our ability to meet international occupational health and safety standards.

CLEANROOMS | CONTROLLED ENVIRONMENTS | ISO STANDARDS



1st BASE facility offers ISO Cleanroom capabilities that is ideal for biotechnology, pharmaceutical, food processing and other applications which have high requirements of cleanliness.

We have other controlled manufacturing environments (HEPA & non-HEPA filtered conditions) including laminar flow devices, chemical fume hoods, biological safety cabinets and PCR cabinets. This also enables us to handle hazardous substances such as liquid or solid chemicals or biological agents.

We adopt various methods to maintain and evaluate our Cleanroom environment. Particle count readings are deployed periodically and limits are established for each Classroom specification. Environmental Monitoring are routinely conducted to detect viable contamination on work surfaces and environment through the use of settle plates and contact plates. Each test provides confidence and assurance that environment is conducive for your product's manufacturing time within our facility.

Our Cleanrooms and Controlled Environments comply with ISO 14644 Standards.

Our Laminar Flow Devices, Biological Safety Cabinets and Automated Dispensing Robots comply up to ISO 5 Cleanroom Standards.

Cleanroom Certifications: ISO 7 and ISO 8



REAGENTS MANUFACTURING



- Sterile Preparation
- ISO Quality Standards
- Validation & Qualification Support
- Flexibility in Scale
- Filling & Packaging
- Material Sourcing & Management

Reagents including various buffers, media and other liquid formulation are essential in various applications and stages in production. One challenge in buffer and media preparation would be managing the logistics and large number of components involved in the manufacturing and storage which requires extensive amount of time and labour, as well as facility space. 1st BASE's expertise in buffer and media preparation provides end-to-end solutions and assurance. We have many years of expertise in reagent manufacturing for the molecular biology and diagnostics markets. We currently manufacture various reagents serving different functionality for numerous companies on a continual basis.

MEDIA PREPARATION

Our cGMP certified facility offers the right match for your media and buffers outsourcing needs. Outsourcing of media and buffer preparation enables you to focus your in-housing bioprocessing capacities on core activities and maximizing manufacturing efficiency with ease of mind. Our team is ready to collaborate with all requests and offers the greatest flexibility and transparency to meet your needs.

MEDIA PREPARATION CAPABILITIES

| | |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Packaging | Standard 500ml/ 1L and any other large volume required |
| Lot Scale | Production scale of 200L per lot |
| QC | <ul style="list-style-type: none"> ■ pH ■ Endotoxin ■ Mycoplasma ■ Sterility Test ■ Osmolality ■ Conductivity ■ DNase/RNase |
| Formulation | <ul style="list-style-type: none"> ■ Work with stock solution or blend formulations provided by client ■ Dehydrated formulation provided by client ■ Custom formulation |
| Water | <ul style="list-style-type: none"> ■ Type 1 Ultrapure Water (ASTM® D1193) Nuclease, Protease and Pyrogen Free. |

KITS MANUFACTURING & ASSEMBLY

Our Custom Kitting and OEM Packaging Solutions include:

- Custom Fill Volumes
- Reagent Manufacturing
- Biomolecule Handling
- Private Labelling
- Prototyping
- Sourcing & Management

We have a team who are experienced in OEM product development, formulation, aseptic processing, kit assembly and packaging. Our proficiency in the handling of many product types bring individual components together in a skilfully designed package and a complete turnkey solution for your custom kitting, packaging and labelling needs.

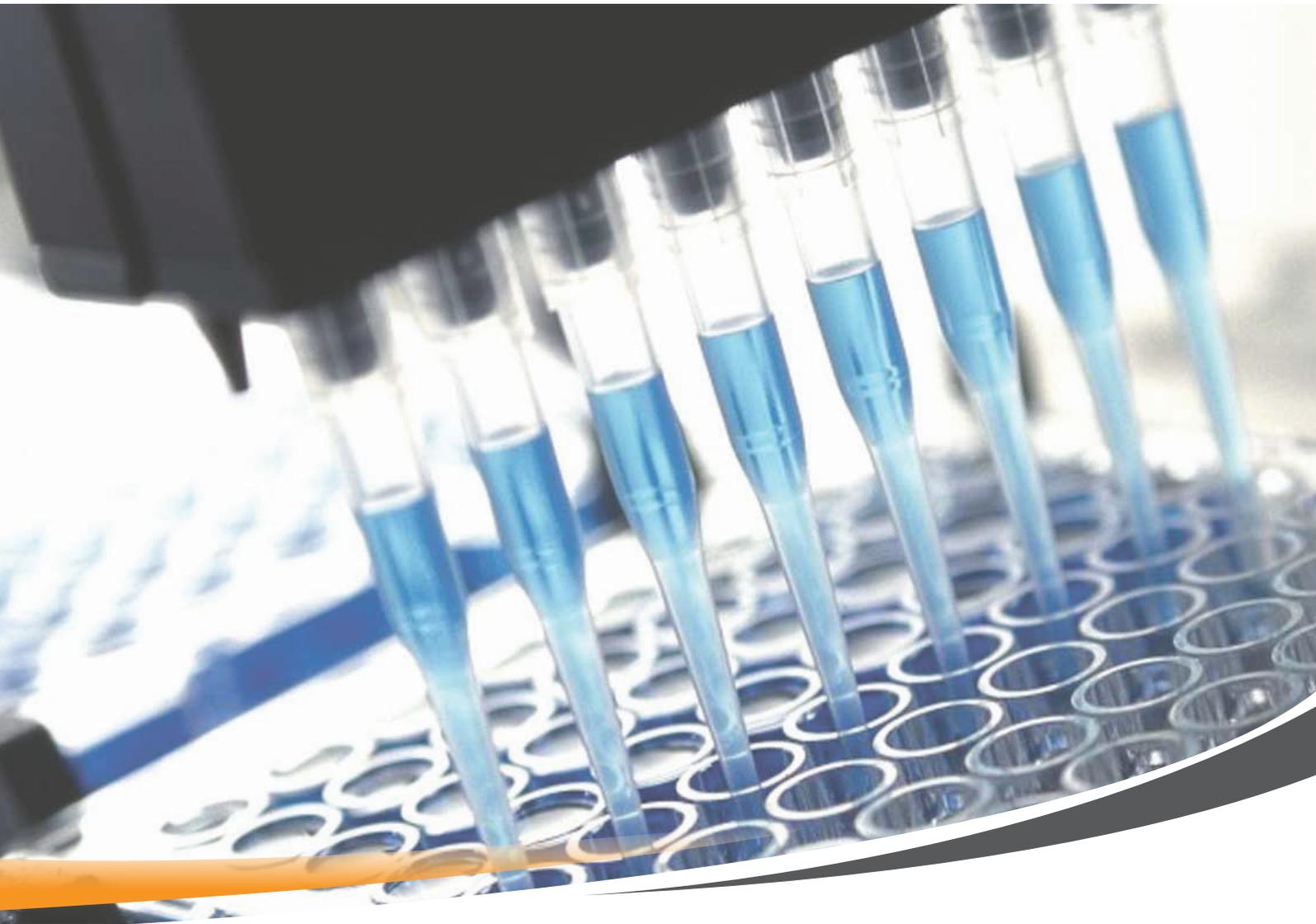


| Low MOQ Packaging Solutions

We provide innovative, value-added packaging solutions for small to mid-sized volume orders or MOQ (minimum order quantity). Our specialized MOQ process eliminates the exorbitant fees that other packaging manufacturers require with smaller-sized orders.

| Short Lead Times

Our best-in-class customer service is grounded in our consistently short lead times and streamlined product manufacturing and delivery. Our High-Speed Liquid Filling Lines work in tandem with our advanced inventory management system, and stock and release program, reducing time-to-market and ensuring on-time delivery of your finished product every time.



HIGH THROUGHPUT & ROBOTICS CAPABILITIES

To enhance our capacity and output, we have engaged in several high throughput and robotics technology over the years. These systems allow for enhanced precision and process controls.

- Semi-Automated System
- High Throughput Dispensing & Labelling

We actively work with partners to further enhance our capabilities in automation. In 2020, we worked with Advanced Remanufacturing and Technology (ARTC) to develop a robotics arm for the capping of 10ml vials. The SCARA robot's purpose was to replace the labour-intensive process of capping and to improve the output and minimise contaminations.



SOURCING & MANAGEMENT

With over decades of experience in the life science industry, we have established an expanded network for different resources and a well-defined supplier evaluation & qualification system.



Reliable Supply



Shorter Supply Chain



Conformance to Standards



Traceability and Transparency

Handling of Sensitive / Hazardous Chemicals:

We are well-equipped and experienced in handling various chemicals which are potentially hazardous or flammable. You do not have to worry over the extensive work and licensing needs to work with these chemicals.



LIQUID FILLING

Our environmentally controlled clean rooms and specialised liquid filling equipment enable us to professionally fill micro-volumes from 10ul to ml and larger volumes of litre to tens of litre.

Our services include automatic and manual filling, capping, machine or hand labelling, printing of batch / expiry info onto labels, containers, retail boxes as well as assembling retail boxes, inserting leaflets etc, packing, shrink wrapping and palletising to specification.

Production run size can be from small one-off runs of several hundred units up to regular scheduled production of several thousand right up to 100,000 units or more.

Filling

- Filling volume from 10ul to 20L
- To microwell plates, tubes, bottles, media flask, cubitainers, bags, petri dishes and various other containers
- Containers material: glass, and various type of plastic

Fluid

- Work with stock solution or blend formulations provided by you
- Water-based formulations
- Solvent-based formulations
- Colour and pigmented products
- Free-flowing liquids like gels and creams
- Temperature sensitive reagents

QC

- **On-site lab for QC**
 - Sterility Test
 - pH
 - Mycoplasma
 - Conductivity
 - Endotoxin
 - Nuclease contamination
- **Partner lab**
 - Osmolarity
 - Functionality
 - Accelerated aging test

Labelling

- Provide your own label artwork or we will help you create it
- Printing of batch / expiry info onto labels
- Pressure sensitive labels/ temperature sensitive
- Material: glossy/ matte
- Coloured/ watermark
- Barcode/ QR code
- GHS-compliant labelling

OUR CASE STUDIES

Nothing demonstrates our problem-solving ability and expertise more than real-world examples. Our case studies illustrate how we stood firm in our determination to resolve issues, despite the challenges we may have faced along the way.



**HIGH THROUGHPUT MANUFACTURING
OF KITS FOR SAMPLE COLLECTION**



**MANUFACTURING OF COMPONENTS
IN RAPID TEST KIT**



**MANUFACTURING OF BUFFERS FOR
TESTING SERVICES**



**DILUTION AND HIGH THROUGHPUT DISPENSING
OF VISCOUS PROTEIN SOLUTIONS**

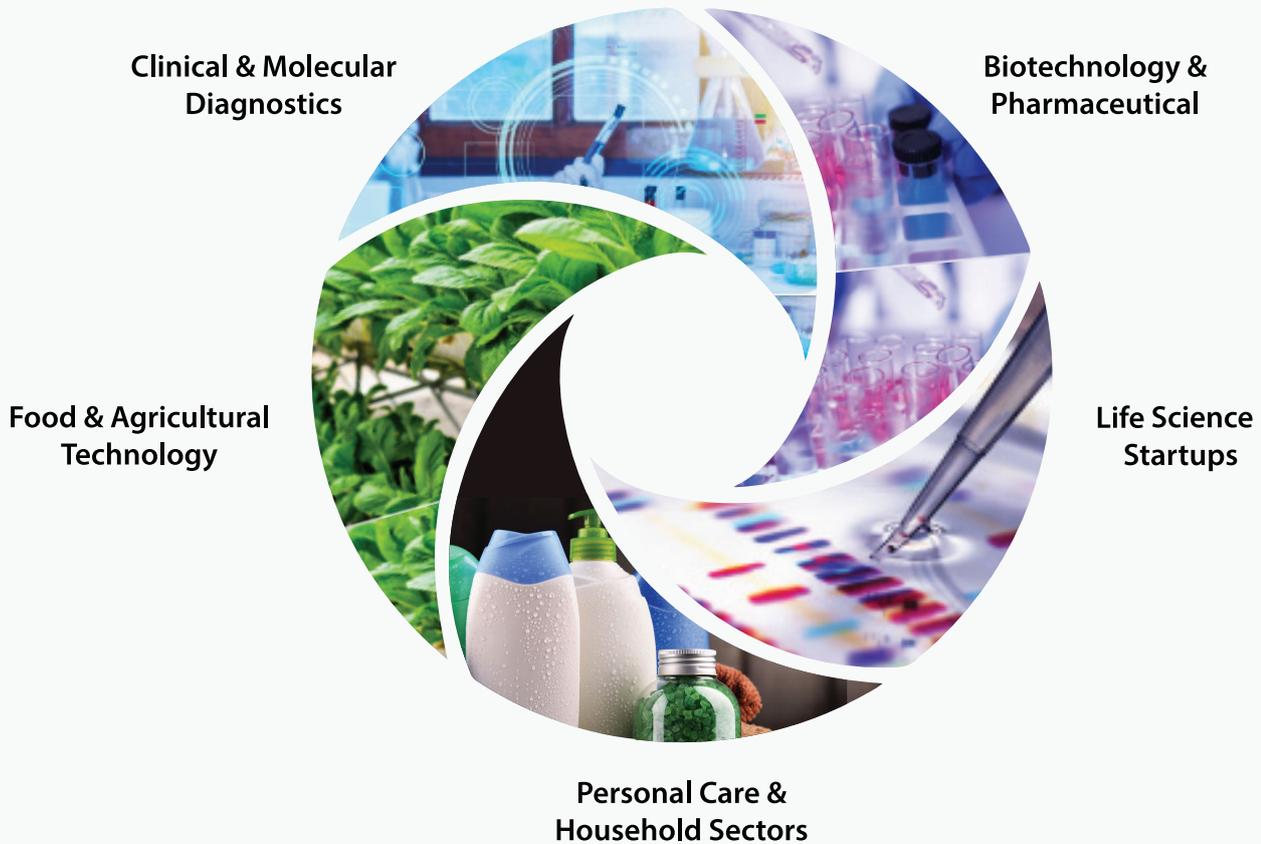
Take a look at how our Contract Manufacturing Services have helped other companies get ahead of the competition.



Scan QR Code to
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MARKETS SERVED

With decades of experience in reagents manufacturing, we understand the demands of your industry. From pilot study, process validation all the way through to logistics and delivery, we support you seamlessly at every stage of the project. You can expect products are manufactured to the optimum levels of quality, precision and consistency according to your requirements.



GET IN TOUCH WITH US TODAY..... >>



cm@axilscientific.com



+65 67757318

