

MEXX ENGINEERING PTY LTD

CAPABILITY STATEMENT

WWW.MEXX.COM.AU

FOREWORD

Mexx Engineering® recognises that the performance of its team members is pivotal to meeting and exceeding its customers' requirements in developing and manufacturing automated robotic systems.

Our customers can assure the future growth of their respective businesses and become partners in success by working collaboratively according to the requirements and expectations of our stakeholders.

A successful partnership requires both parties to work together with a strong level of commitment to ensure the delivery of quality products and services.

We are committed to improve productivity, mitigate risks and hazards, reduce energy use, and cut waste generation within the manufacturing industry.

Mexx Engineering® looks forward to partnering with its customers to fulfil these important business objectives.

Luis De Jesus
Managing Director



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ABOUT MEXX ENGINEERING PTY LTD



OVER
A
DECADE
OF
EXCELLENCE

As an Original Equipment Manufacturer (OEM), Mexx Engineering Pty Ltd develops dedicated automated industrial solutions and robotic based systems that can run in 24-hour continuous production with minimum human supervision.

Our turnkey systems can improve your productivity, mitigate risks and hazards, reduce energy use, and cut waste generation in your production process, resulting in clear, sustainable, automated solutions for your business.

COMPANY PROFILE

Mexx Engineering® understands automation is the future of industrial manufacturing and we are committed to remaining at the forefront of automation technology.

We design and manufacture state of the art manufacturing automation solutions and robotic systems. We are constantly assessing new possibilities with manufacturing materials and processes, so that we can offer the most innovative and up to date solutions possible.

Our team continuously improves our operation to ensure successful products and project outcomes for clients in various industries such as manufacturing, wood, plastic, food & beverage, pharmaceutical, construction and more.

COMPANY DETAILS

Company Name: Mexx Engineering Pty Ltd

ABN: 58 121 994 563

ACN: 121 994 563

Date of Incorporation: 2 October 2006

Business Owner: Mr. Luis De Jesus

Address: Unit 2, 28 Harrington Street
Arundel QLD 4214 Australia

Ph: +61 7 5571 5733

Email: info@mexx.com.au

Web: www.mexx.com.au

ICN Gateway Company ID: 59105

Local Australian Manufacturer: Yes

APPMA and AIDN Member: Yes

Importer: Yes

Exporter: Yes

Australian Indigenous Owned: No

Public and Product Liability

- \$2.3 million material damage
- \$20 million public & product liability

Professional Indemnity

- \$2 million

Marine Cargo Insurance

- Import \$1 million
- Export \$1 million
- Domestic Transit \$750,000

Workcover Queensland

- Policy Number WBA 100950327

Employee Relations Liability

- \$2 million aggregate limit

Health & Safety Statutory Liability

- \$2 million aggregate limit including defence cost



HEAD OFFICE & MANUFACTURING FACILITY

Mexx Engineering Pty Ltd head office and manufacturing facility is strategically placed within the robust city of the Gold Coast.

The head office is at Unit 2 of 28 Harrington Street Arundel Queensland 4214 Australia, while the engineering office and manufacturing facility is at Unit 1.

Facilities and Equipment

- 1,802 sqm land area
- 1,163.4 sqm building area
- Conference room with a 43" Ultra HD 4K Touchscreen Multi Monitor
- State of the art CAD Stations
- Milling Machines
- Lathe
- 3D Printer

With over a decade of industry experience, we take a multidisciplinary approach in developing customised solutions for various manufacturing industries. With many integration options available, Mexx Engineering Pty Ltd will develop and manufacture the best solution that fits the customer's application.

Through our collaborative partnerships with our customers, suppliers, and employees, we envision to supply efficient, safe, and sustainable automated solution for industry 4.0

Mexx Engineering® is committed to improving productivity, mitigating risks and hazards, reducing energy use, and cut waste generation within the manufacturing industry by achieving customer satisfaction through the use of quality procedures which is operated to meet or exceed the requirements of ISO 9001:2015.

MAJOR CLIENTS



INDUSTRY SERVED

- Agriculture
- Construction
- Food & Beverage
- Marine
- Machining and Fabrication
- Meat and Produce
- Mining
- Packaging & Palletising
- Paper Converting
- Pharmaceuticals & Neuroceuticals
- Plastic & moulding
- Wood



WHY CHOOSE MEXX ENGINEERING?



Since 2006

- Business has been built on expert service offerings and the reputation it has garnered from the completion of various successful projects.

Diverse Industries

- Mexx Engineering® has completed projects in various sectors including pulp & paper, food & beverage, bottle manufacturing, metal industry, medical & pharmaceutical, agriculture, construction & fabrication, marine, meat packaging and various others.

Awards

- 2020 ABB Most Innovative Award - Asia Pacific, Middle East Asia and South Africa
- 2020 Gold Coast Business Excellence - Manufacturing Award for the month of October
- 2020 Manufacturers' Monthly Endeavour Award Finalist for Technology Application, Environmental Solution of the Year, Global Supply Chain Integration of the Year, Australian Industrial Product of the Year, and Most Innovative Manufacturing Company.
- 2019 ABB Most Innovative Award - Australia
- 2014 Manufacturers' Monthly Endeavour Award – Most Innovative

Partnership

- Strong technology partnerships which ensures specialised support, to name a few, ABB, Omron and Dürr

Local Manufacturing

- 95% of the items manufactured by Mexx Engineering® are made in Australia

Quality Management Systems

- We are ISO9001:2015 certified and have submitted formal applications for ISO45001:2018 and AS9100, Rev. D

Diverse Skills

- Mexx Engineering® invests in highly skilled engineers and trades staff. We have Mechanical, Mechatronics and Electrical engineers in our employ, supplied with state-of-the-art design software and workstations.
- We have multidisciplinary design, engineering, manufacturing, installation and commissioning expertise, in several sectors, which compliments our project management capabilities.

Risk Reduction

- Mexx Engineering® has a local presence based on Arundel, Gold Coast QLD. This state-of-the-art design and manufacturing facility, enables us to provide repairs & maintenance support for our clients' machines.
- Machines are also equipped with remote diagnostics so Mexx Engineering® can provide remote support. All equipment is covered with a 1-year warranty.



MEMBERSHIPS & ASSOCIATIONS



WHAT ARE OUR KEY DIFFERENTIATORS?

Mexx Engineering® key differentiators are:

- Australian made and owned. We are a well-established original equipment manufacturer (OEM) since 2006.
- We have successfully designed and developed sophisticated automated systems in various industries.
- We utilise high quality products, systems and methodologies together with a highly skilled and diverse workforce to provide sound engineering solutions.
- We are global trade ready. We've successfully completed several projects for various multinational companies including our most recent project - a major bottling plant upgrade in New Zealand
- Strong relationships with current and prospective clients

ISO CERTIFICATIONS

ISO 9001:2015

Quality Management System

- This registration covers the Quality Management System for the provision of customer communication, resource management and product realisation processes in designing and developing industry specific automated solutions and robotic systems.

ISO 45001:2018

Occupational Health & Safety Management System

- Registration is underway

AS/NZ 9100:2016

Quality Management System for Aviation Suppliers

- Registration is underway



MEXX ENGINEERING PTY LTD



ELECTRICAL CONTRACTOR

Full Electrical Contractor Licence

- Mexx Engineering Pty Ltd
- Licence Number: 85407

REGISTERED TRADEMARK

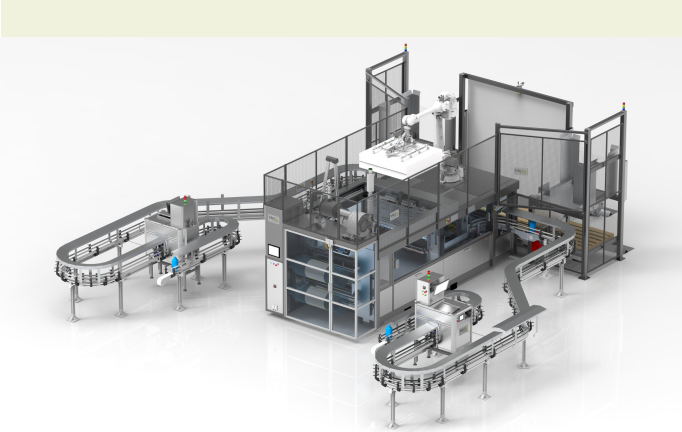
Register of Trade Marks

Trademark Registration Numbers: 2007679 and 2007680

- Mexx Engineering Pty Ltd is registered for goods and/or services under Class 7 and Class 42.

AUTOBAGGER SYSTEM

The Autobagger System will reliably collate and bag products for transport. This system can be manufactured either as a stand alone OEM product or fully automated turnkey system as part of a larger production line.



AUTOBAGGER MK5 SYSTEM

Current Locations: QLD (similar version installed in NSW & VIC)

Project Timeline: 6 months

KEY FEATURES:

- Automatic bottle collating and bagging machine
- The system accommodates both half size and full size bags simultaneously
- Servo controlled for maximum flexibility
- Dual infeed of 2 products simultaneously
- Versatile conveyor in-feed configurations available
- Uses continuous bag tube that resizes length for each product
- Automatic pallet infeed system
- Integrated pallet destacker (optional)
- AGV load positions for pallets or layer boards
- System safety interlocked and guarded as per Australian and New Zealand Standards

BI-DIRECTIONAL PALLETISER AND DEPALLETISER SYSTEM

The Bi-directional Palletiser and Depalletiser System is designed with our universal bottle vacuum head to handle various bottles sizes. This versatility in combination with our pallet in-feed and out-feed system gives customers a versatile solution to suit many bottle lines.



BI-DIRECTIONAL PALLETISER SYSTEM

Current Location: NSW

Project Timeline: 6 months

KEY FEATURES:

- Multifunctional bottle palletising and depalletising system can perform various progress on demand as follows:
 - Depalletise from pallet to conveyor
 - Palletise from conveyor to pallet
 - Use as a buffering system for inline blow moulding. The system will feed bottles as well as palletise bottles, as required.
- Central control via HMI
- One ABB robot equipped with a Mexx Universal Bottle Vacuum Head
- Automatic multi-pallet infeed and outfeed
- System safety interlocked and guarded as per Australian and New Zealand Standards

BOTTLE PALLESITER SYSTEM

The Bottle Palletiser System will pick and place bottles in layers onto a pallet. The system can have one robot picking up from two different conveyors and palletise bottles onto two separate pallets.



BOTTLE PALLESITER SYSTEM

Current Location: QLD

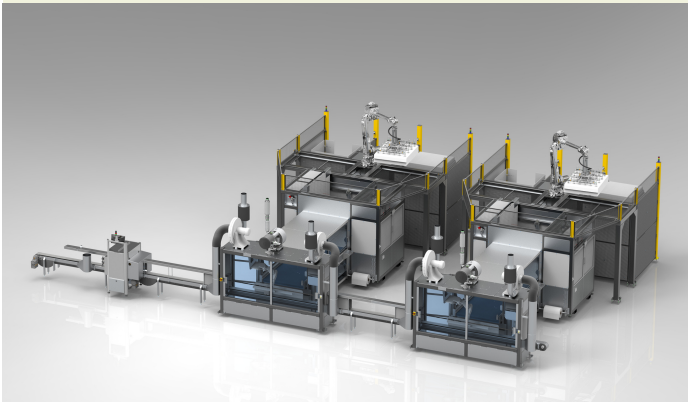
Project Timeline: 4 months

KEY FEATURES:

- Seamless bottle palletising system
- Central control via HMI
- One ABB robot equip with a Mexx Universal Bottle Vacuum Head
- Automatic multi-pallet outfeed
- System safety interlocked and guarded as per Australian and New Zealand Standards

DEBAGGING SYSTEM

The Debagger System will cut a wide range of bag types and sizes with precision. The waste bag is collected and compressed into a waste sock. This system's robot will pick the product in groups and modulate the feed onto the vacuum conveyor, as required.



DEBAGGER SYSTEM

Current Location: NSW and New Zealand

Project Timeline: 12 months

KEY FEATURES:

- Bottles are automatically removed from the bag
- System will accommodate full size and half size bags
- Automatic bag de-palletising
- Semi-automatic version also available
- Bags are cut with precision without damaging any bottles
- Automatic bag collection and compression into waste sock
- System safety interlocked and guarded as per Australian and New Zealand Standards

CONVEYOR SYSTEM

The Conveyor System controls the product delivery from point A to point B with the use of various conveyor modules for various function such as bottle accumulation, bottle inverting, and bottle turning. Its guide rail system is fully adjustable to ensure continuous movement of the bottle around a curve.



CONVEYOR SYSTEM

Current Location: QLD

Project Timeline: 4 months

KEY FEATURES:

- Aluminium or stainless conveyor system
- Includes automatic self centring guide rail adjusters
- Integrated transfers from upstream conveyors
- Integrated transfers to downstream conveyors
- High-speed with virtually no back pressure and bottle gaps
- Accumulation system
- Full system control
- System safety interlocked and guarded as per Australian and New Zealand Standards

AUTOMATED CONCRETE TEST LABORATORY

The Automated Concrete Test Laboratory serves as a storage and lab testing facility that consists of 3 main processing areas; the incoming cores, the limewater storage and handling, and the core testing.



AUTOMATED CONCRETE TEST LABORATORY

Current Location: QLD

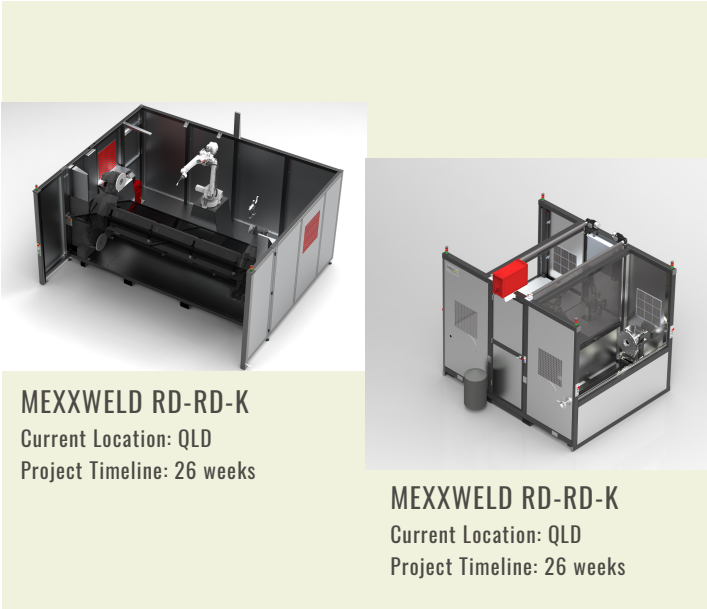
Project Timeline: 12 months

KEY FEATURES:

- 2 ABB Robots for core demoulding and testing
- Infeed conveyor system for moulded cores in steel mould
- Dedicated demould and clean station
- Outfeed conveyor system for returning demoulded moulds
- Automation of grinding machine
- Automation of Compression Testing Machine
- HMI interface for overall system control and data review
- Robotic high density storage system
- Automatically access any core at any time during testing
- System safety interlocked and guarded as per Australian and New Zealand Standards

ROBOTIC WELDING CELL

The Robotic Weld Cell performs robotic welding on a fixed table (FX) or in a rotating unit (RD). The rotary unit reorients the product during the welding process. The system ensures the operator is protected from weld arc. The system operates automatically ensuring maximum production output. The robot is always welding while you unload finished products and load new parts.



MEXXWELD RD-RD-K

Current Location: QLD

Project Timeline: 26 weeks

MEXXWELD RD-RD-K

Current Location: QLD

Project Timeline: 26 weeks

KEY FEATURES:

- Rotary axis coordinated with welding robot
- Various Fronius power source options to suit customer's requirement
- TCS with Bulls-eye for torch service and calibration
- Notification light tower and alarm to notify operator of cell status and material outages.
- Operator interface through Robot Teach Pendant.
- System contains fixed part loading locations for each of the parts to be welded
- System safety interlocked and guarded as per Australian and New Zealand Standards

ROBOTIC PAINTING SYSTEM

The Robotic Paint System is a complete painting facility. The robotic system supplies product to the paint robot where it applies consistent coating of paint. A fully automated product handling system manages the product through all painting, handling, and baking processes.



ROBOTIC PAINT SYSTEM

Current Location: QLD

Project Timeline: 48 weeks

KEY FEATURES:

- ABB Robot with integrated component positioner
- Integrated bake oven (optional)
- Custom spray booth with dry medium air filtration
- Temperature controlled paint booth to maintain consistent paint environment all year round
- Integrated automatic indexing system
- Notification light tower and alarm to notify operator of cell status and material outages
- Operator interface through HMI
- System safety interlocked and guarded as per Australian and New Zealand Standards

VISION SYSTEM

The Vision System checks the orientation and quality of a product. It inspects the product for damage and determines how to handle it. A dedicated feeding system that automatically spaces the bottles can be added as an option.



ALUMINIUM

Current Location: NSW, QLD, VIC
Project Timeline: 8 weeks



STAINLESS STEEL

Current Location: New Zealand
Project Timeline: 8 weeks

KEY FEATURES:

- 5" touch screen for operation and production information
- 20" display and roller track ball for camera system control and setup
- Light tower for status indication
- Eject bottles using air blast
- PLC controlled
- Independent floor mounted frame for stability
- Central control via HMI
- System safety interlocked and guarded as per Australian and New Zealand Standards

COMPLETE TURNKEY SOLUTION - BOTTLE PALLETISING AND BOTTLE DELIVERY SYSTEM



BOTTLE PALLETISING AND BOTTLE DELIVERY SYSTEM

Current Location: VIC
Project Timeline: 12 months

The complete bottle delivery system consists of the bottle packaging and palletising system with an independent bottle delivery system to the filler. The system depicted above illustrates the packaging system that is connected to 6 blow moulding machines. Each line has 6 vision systems, 6 automatic pallet destackers, a top frame pad placing system and a fully automated pallet strapping system. The debagging and bottle delivery system consists of 2 independent debagger systems and 200 meters of stainless steel conveyor supplying bottles to 2 independent high speed filling lines.



CONTEXT OF SERVICE

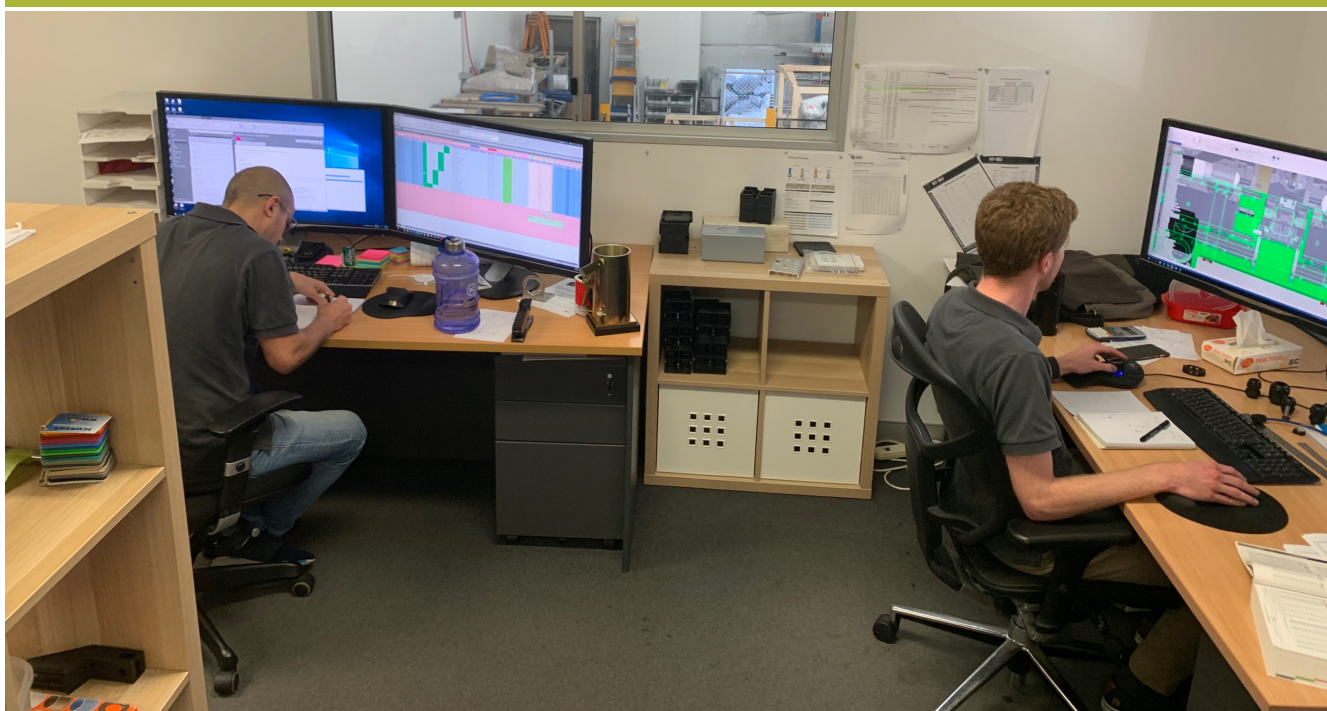
Mexx Engineering® was established to:

- Address the exponential growth of technology in the workplace and match the need with the necessary specialised skills
- Provide a sustainable service and product line to support the Australian market in achieving the adaptation of Industry 4.0
- Be at the forefront of the development of new and innovative manufacturing processes using the state of the art design methods, processes, materials and equipment to unlock the safety, efficiency and profit benefits
- Build on the reputation of our successful projects and satisfied clients

CUSTOM AUTOMATION

Mexx Engineering® takes full advantage of industry 4.0 technology when developing a dedicated complex industrial automated solution.

- We work closely with our clients to create innovative manufacturing solutions that are practical, cost-effective and integrates with your existing systems.
- We design, manufacture, and install special purpose machine to suit your desired production quality and speed.
- Special purpose machines and automated systems offer manufacturers a complete solution to efficient and cost-effective production processes.
- Regardless of the size or complexity of your project, our engineers can provide you with an innovative and flexible automated system, which completes and enhances your manufacturing process to achieve precision outputs and increased efficiency.



CUSTOM DESIGN ENGINEERING

Mexx Engineering® focus is to innovate sustainable solution for you.

- We have a comprehensive approach in product development and consider all the fundamental elements of a successful product including:
 - Ease of usability and other user requirements
 - Cost-effectiveness and reliability of manufacturing materials
 - Trends in design
 - Market demand
- We supported various Australian businesses, from a wide range of industries with research and development for more than a decade .

INCREASE IN SAFETY

**11% safer
by 2030**

Physical and psychological workplace injury is predicted to fall by 11 percent by 2030 as a result of more pervasive automation in the workplace.

INCREASE IN EFFICIENCY

**20 times
faster**

Processes can be performed 20 times faster when the processing is carried out by a robotic system with reduced human error. This reduces wait times in customer service and improves the customer experience.

INCREASE IN PROFIT

**300% up to
1,000%**

The implementation of a Robotic Process Automation (RPA) solution usually pays for itself within less than a year. The Return of Investment (ROI) over a term of three years is between 300 and 1,000 percent.

SOURCE: Marjorel. 2018. A.T. Kearney. Inc, Robotic Process Automation. Federal Ministry of Labour and Social Affairs. 2016. Green Paper: Work 4.0, Re-imagining Work. German Government IFR. 2016. World Robotics 2016 Industrial Robots. International Federation of Robotics.



HANSON HEIDELBERG CEMENT GROUP

2017 - Automated Concrete Test Laboratory (\$3 million)

- Mexx Engineering® designed, manufactured, installed and commissioned a fully automatic core demoulding, storage and lab loading system.



ASHTON MANUFACTURING

2018 - Robotic Paint System (\$3 million)

- Mexx Engineering® designed, manufactured, installed and commissioned a fully automatic robotic painting system



SYNLAIT MILK

2019 - Debagging and Bottle Conveying System (\$2 million)

- Mexx Engineering® developed, manufactured, installed and commission an 'Auto Debagger and Bottle Conveying System" to Synlait Milk that debags full size and half size bags and supply continuous feed of bottles trough labelling and filling system.

WAGNERS

2020 - Crossarm Manufacturing Line (\$6 million)

- Mexx Engineering® developed, manufactured, installed and commission an automatic 'Cross-arm Manufacturing line" to Wagners that depalletizes, drills, glues inserts and endcaps to palletising and strapping stations.





MEXX ENGINEERING **Contact**

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