



**AUSTRALIS**  
ENGINEERING

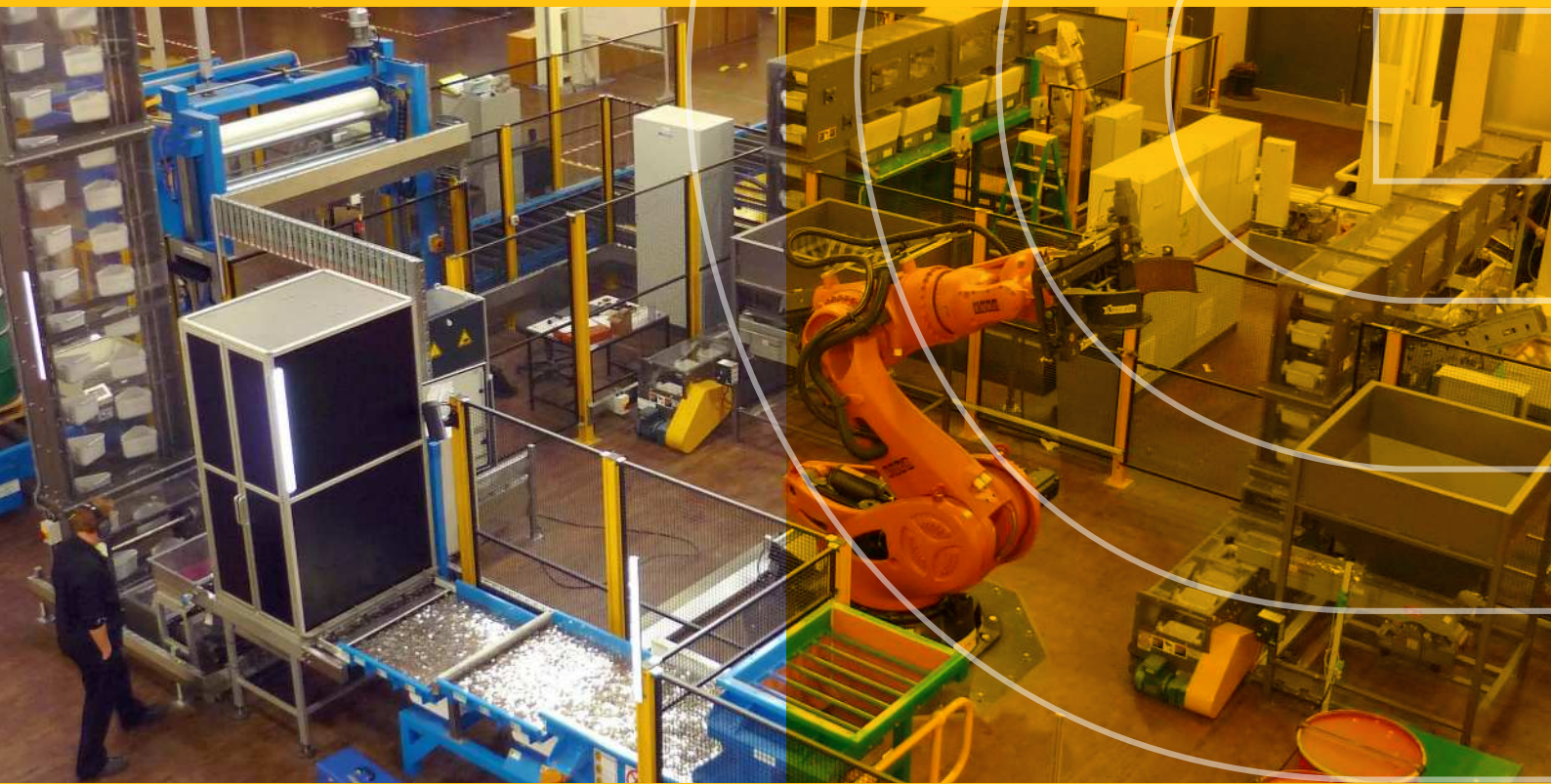
Smart thinking  
in motion

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**Automated  
materials  
handling**

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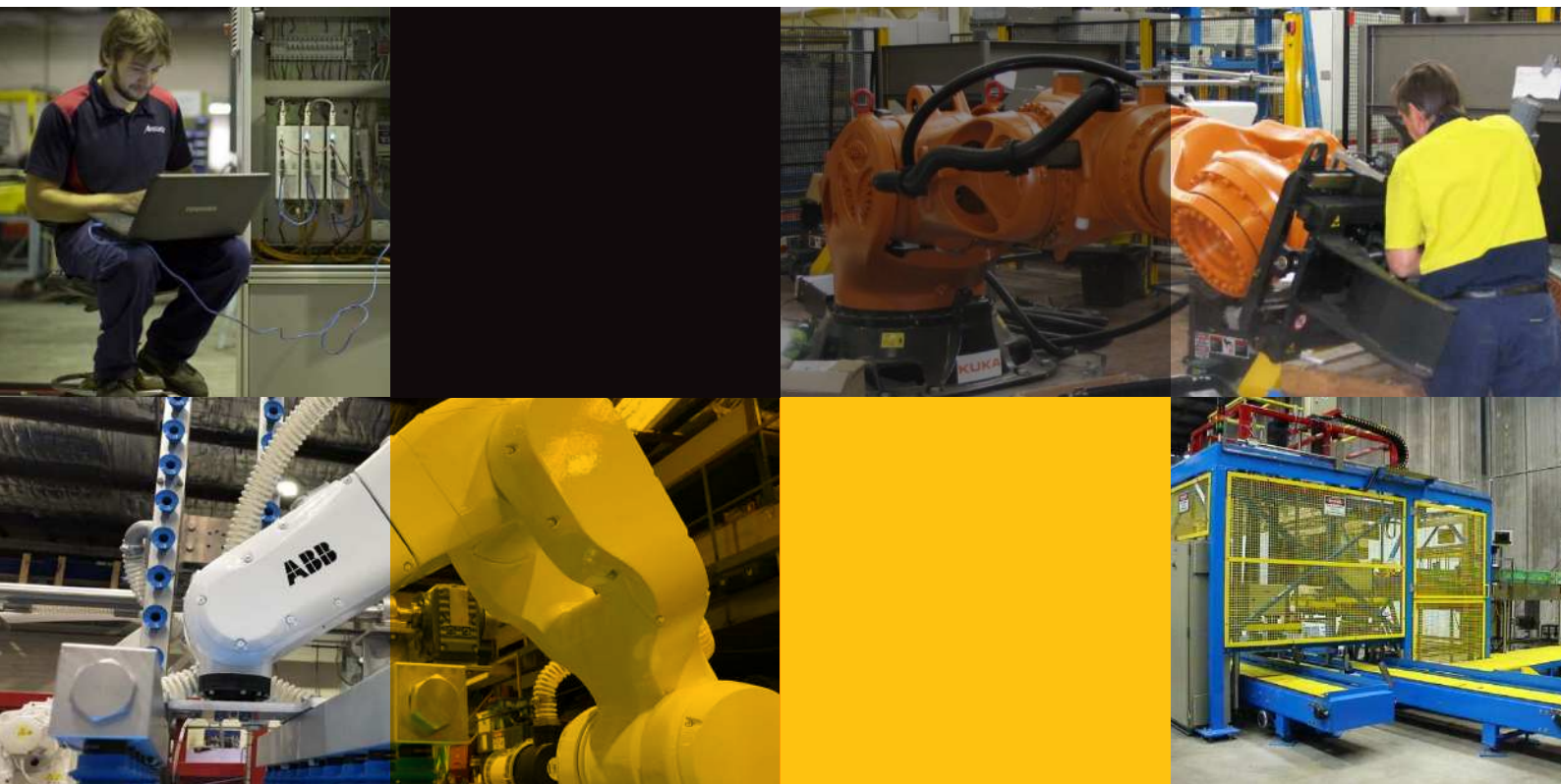




# Automated materials handling

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Smart thinking in motion is our guiding ethic and is all about simplifying complex problems. Finding innovative engineering solutions that solve inherently difficult materials handling challenges.



Established in 1983, Australis Engineering are a multi-faceted provider of engineering design, materials handling equipment and industrial automation plus servicing and maintenance. We excel at designing and manufacturing innovative, fully tailored materials handling equipment.

We have a strong engineering design focus and apply mechanical and automation expertise to develop the broad spectrum of equipment required in Australian manufacturing and warehousing. Australis' collective knowledge across a range of industries results in smart thinking and innovation.

Smart thinking is delivered by our in-house engineering and trade experts meaning customers have direct access to the designers and technicians who are delivering your solution - nothing is lost in translation and you do not have to outsource capabilities to multiple providers.

|| We have had similar custom automation systems supplied and Australis standout as a leader."

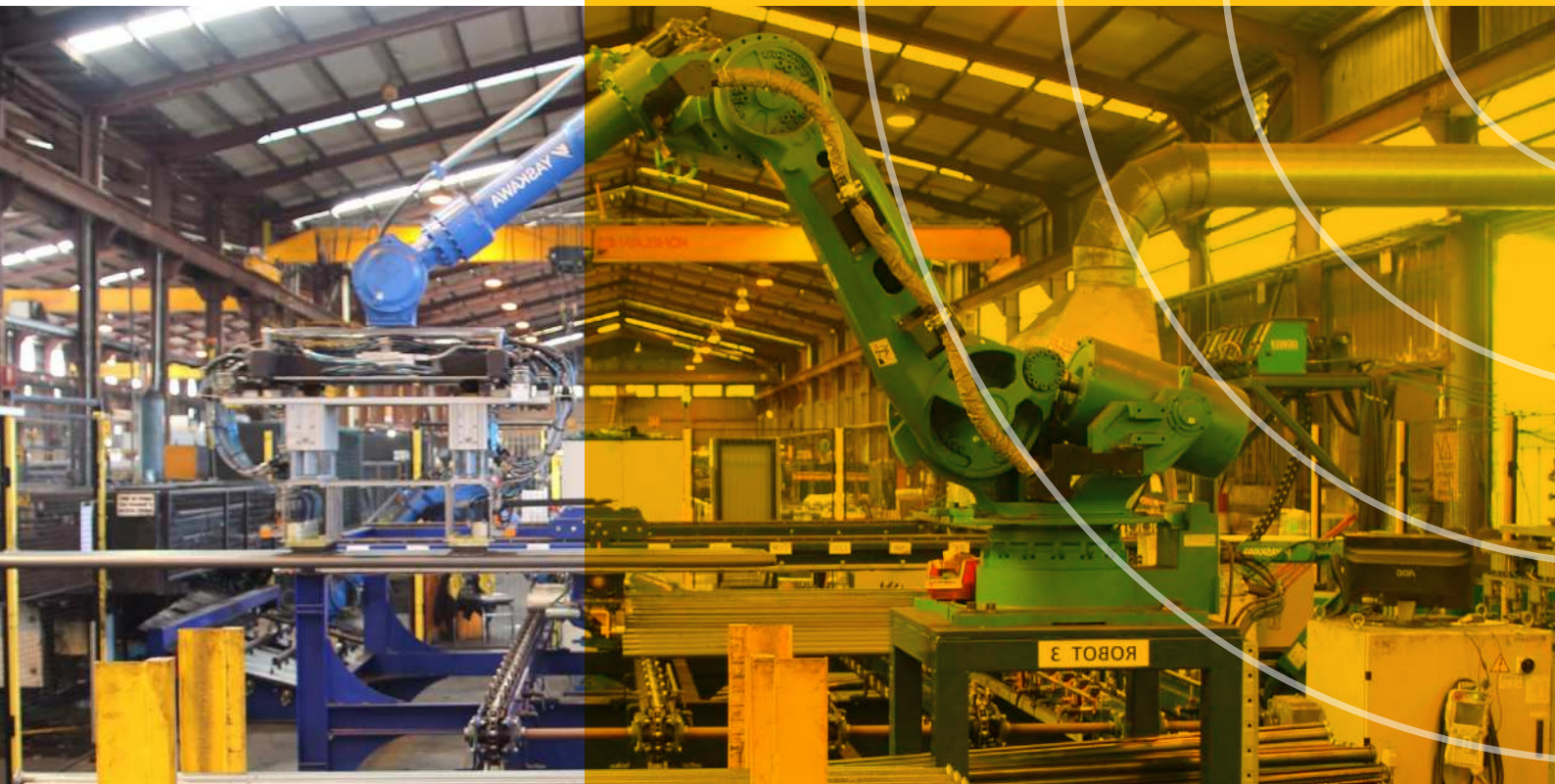


**AUSTRALIS**  
ENGINEERING



# The smart choice

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|| They have the experience, knowledge and ability to engineer and project manage large packaging projects.”

Our customers choose Australis for our expertise in conveying, automation and materials handling.

Smart thinking drives this expertise to deliver innovative engineering designs that solve specific client challenges such as deploying new products, improving productivity, improving safety, increasing efficiency or reducing production costs.

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We offer in-house mechanical engineering, electrical engineering and automation capabilities.

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We design, manufacture, install, commission and service.

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Highly experienced in system integration and turnkey projects, including integration of existing equipment or equipment from other vendors.

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Demonstrated expertise in a wide range of industries including food, beverage, pharmaceuticals, health, packaging, warehousing, industrial, hazardous substances, coins and general manufacturing.

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With vast experience across a diverse range of industry sectors and equipment, we deliver customer solutions that ensure a great return on investment.

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Certified to ISO9001:2015 Quality Management standard.

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Australis firmly believes in the inherent strength of the Australian manufacturing industry.

We are proud members of the Australian Packaging and Processing Machinery Association (APPMA), the Advanced Manufacturing Growth Centre (AMGC), the European Hygienic Engineering Design Group (EHEDG), Australian Industry Group (AIG) and we are founding members of the Southern Strength Agile Manufacturing Network (SSAMN) and National Robotics and Automation Group (NRAG).







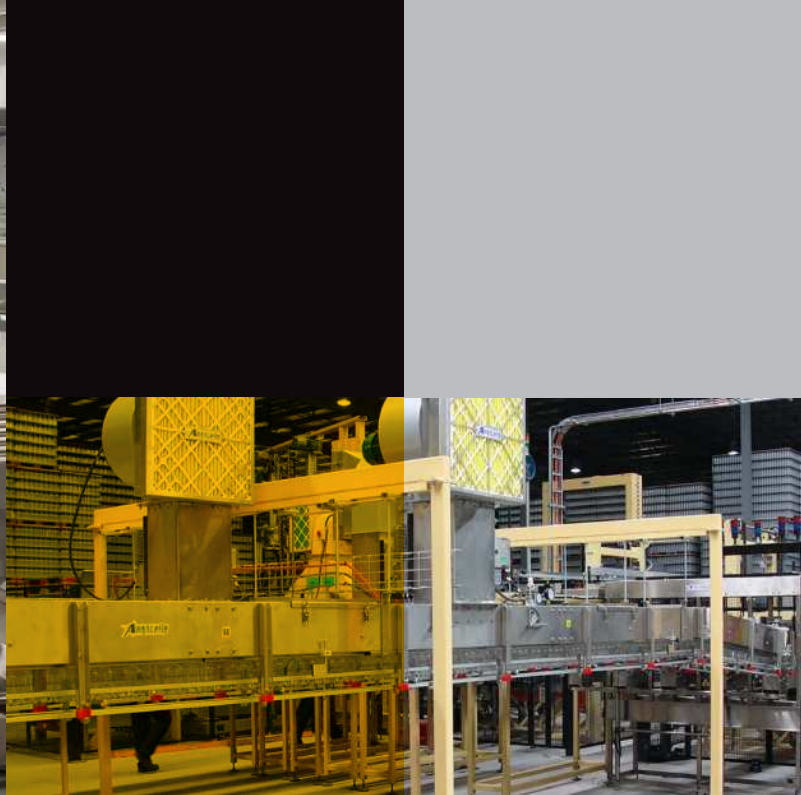
# Smart turnkey systems

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The Australis team of mechanical and automation engineers and mechanical and electrical technicians give us the ability to provide a complete turnkey service from concept to delivery then onto servicing and support.

Turnkey systems typically include special purpose equipment, conveyors, robotics, sorting and diverting, pallet handling and capital equipment – all integrated through smart software and automation. Our industrial internet of things (IIOT) services allow for increased visibility of equipment performance, uptime, maintenance scheduling and other key performance metrics.

Our diverse experience allows our team to incorporate solutions common in one industry into a successful outcome in a different industry with the confidence that the solution will be robust and reliable. These abilities allow Australis to supply turnkey solutions that offer an outstanding return on investment while minimising client risk.



- Concept creation, design realisation, fabrication, automation, installation and commissioning.
- Fully customised systems incorporating bespoke equipment, conveyors, sorting and diverting, palletisers, robotics, pallet handling, packing and packaging, pallet handling and connected through integrated industrial automation and IIOT solutions.
- Australis Engineering's expertise is the result of over 36 years of successful manufacturing and commissioning of complex, automated materials handling systems for manufacturing and warehousing facilities. Our expertise is authenticated by our third-party certification to the **ISO 9001 Quality Management standard**.







# Smart conveyors

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Australis has over 36 years experience of design, fabrication and commissioning all types of conveyors, from one-off conveyors, to entire production systems.

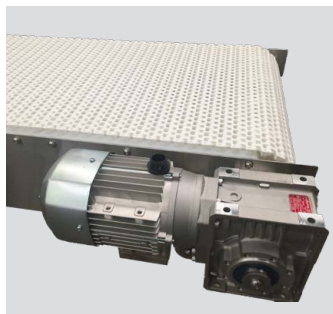
Conveyor design, manufacture and commissioning are core Australis capabilities. Our expertise and knowledge across a variety of industries means we deliver the latest in 'Smart Conveyor' technologies and systems.

Our conveyors are fabricated to suit any operating environment including wash-down, hygienic and pharmaceutical grades and can be supplied in stainless or mild steel (galvanized or powder coated), anodised aluminium and even plastic.

Our first step is creating a partnership with our clients and getting to know their business and products.



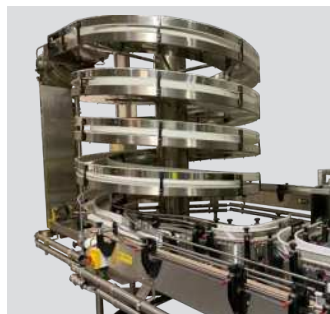
# Smart standard and smarter custom designed conveyors



**Modular plastic belt conveyors**



**Chain conveyors**



**Spiral conveyors**



**Pallet conveyors**



**Fabric belt conveyors**



**Single filers**



**Laydown conveyors**



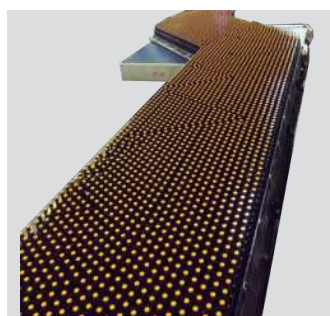
**Mass flow conveyors**



**Slat chain conveyors**



**Air conveyors**



**Accumulation systems**



**Continuous carton elevators**



**Roller conveyors**



**Bucket elevators**



**Storage conveyors**



**Conveyor guide rails**

# Our conveyors are used in a wide range of industries

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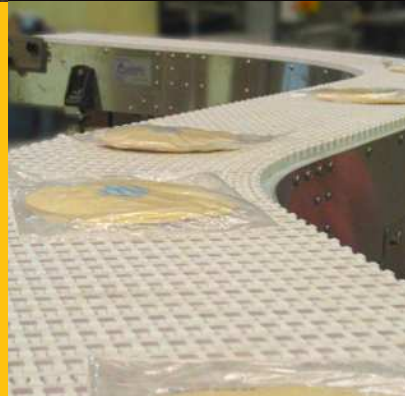
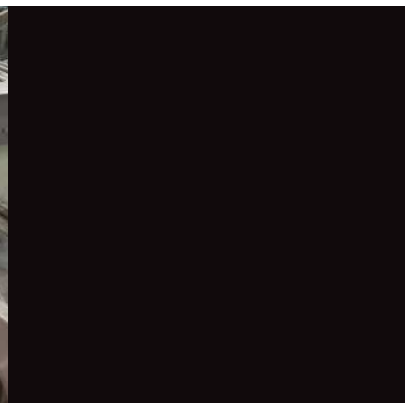
## Food

Packaged, fresh and raw produce, meat, small goods, seafood, chocolate, confectionary, pasta and grains.

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## Beverage

Container handling, bottles, cans, cartons, PET, HDPE, glass, aluminium, steel.





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## Health and Pharmaceuticals

Pills, capsules, vials, blood and plasma, blister packs, electronic devices, surgical packs, nuclear medicine.

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## Warehousing and Distribution

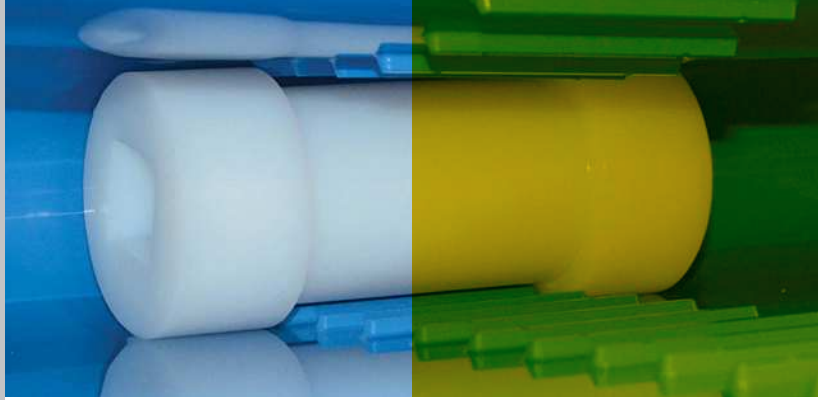
Cartons, totes, crates, drums, pallets, satchels, IBC's, bulka-bags, mail and parcels.

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## Manufacturing

Steel bars, bricks, cement bags, insulation, glass, metal components, PVC fittings, fibre cement, gas cylinders, coins and coin blanks, automotive components, waste and recyclables, batteries, electronics, carbon-fibre, wood and timber.





# Hygenius™ conveyors

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## Australis introduces the Hygenius™ Conveyor the truly clean conveyor.

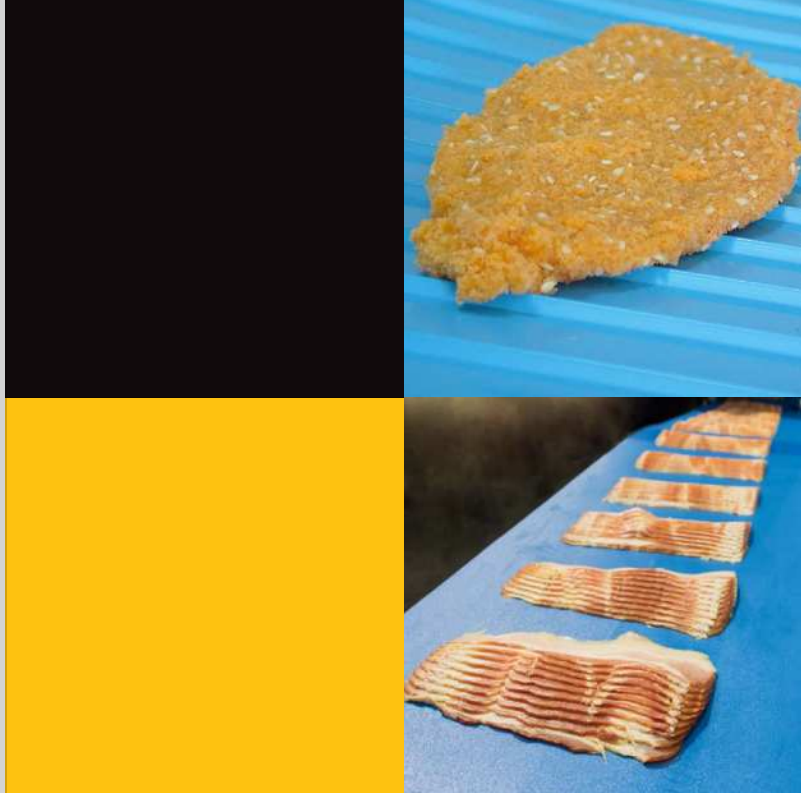
The European Hygienic Engineering Design Group (EHEDG) recognised that clean and healthy products shouldn't just be the result of procedures and processes but should start at the very beginning with the design of the equipment itself.

"you don't have to clean what isn't there" – This simple understanding is the foundation of the Hygenius™ design.

The design minimises surfaces, removes hidden and hard to reach crevices and utilises EHEDG approved components such as Volta polyurethane belts and hygienic feet. We also eliminate exposed screw threads and incorporate our unique, patent pending, Clean Belt Tensioning and Tracking System.

With safety at the forefront, the Hygenius's open frame design also has fully guarded head and tail areas for operator safety. This is often overlooked in other washdown conveyors.





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## Key features and options

- Volta SuperDrive and Mini-SuperDrive belts
- Clean belt tensioning and tracking
- Quick belt release for easy belt removal
- Belt lifter for cleaning underneath the belt
- Tool-less removal of the belt running strips for easy cleaning
- Fully guarded head and tail pulleys for safety
- Quick remove belt return rollers
- Full 304 or 316 Stainless Steel option
- Anti-bacterial plastic running strips option
- Stainless steel motors, NSD TupH treated motors and Teflon coated motors options



# Smart pallet handling

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Australis can offer a complete range of standard pallet conveyor modules combined with customised elements to suit pallet handling requirements from truck unloading or loading, to wrapping, storage and buffering.

Our range of conveyors and pallet handling equipment is suited to both high and low volume environments, with proven, pre-engineered designs that minimise project turnaround time. Equipment is available in powder coated or galvanised steel, or full stainless steel for harsher outdoor applications.

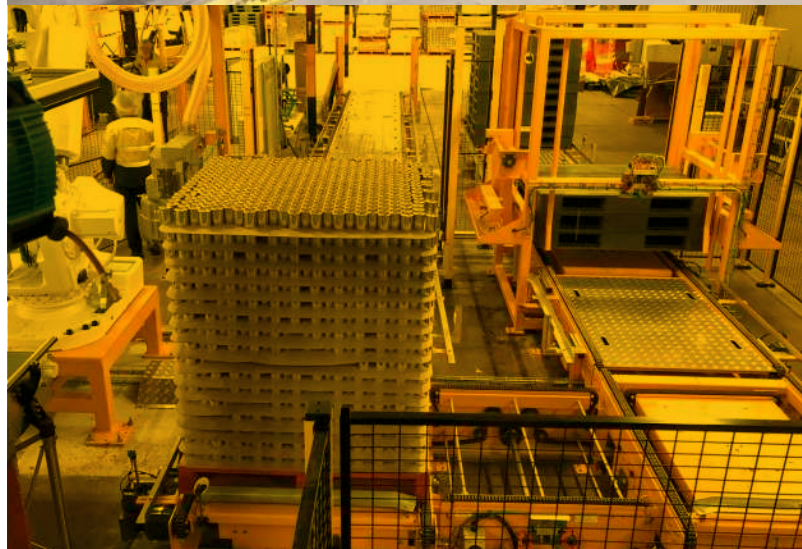
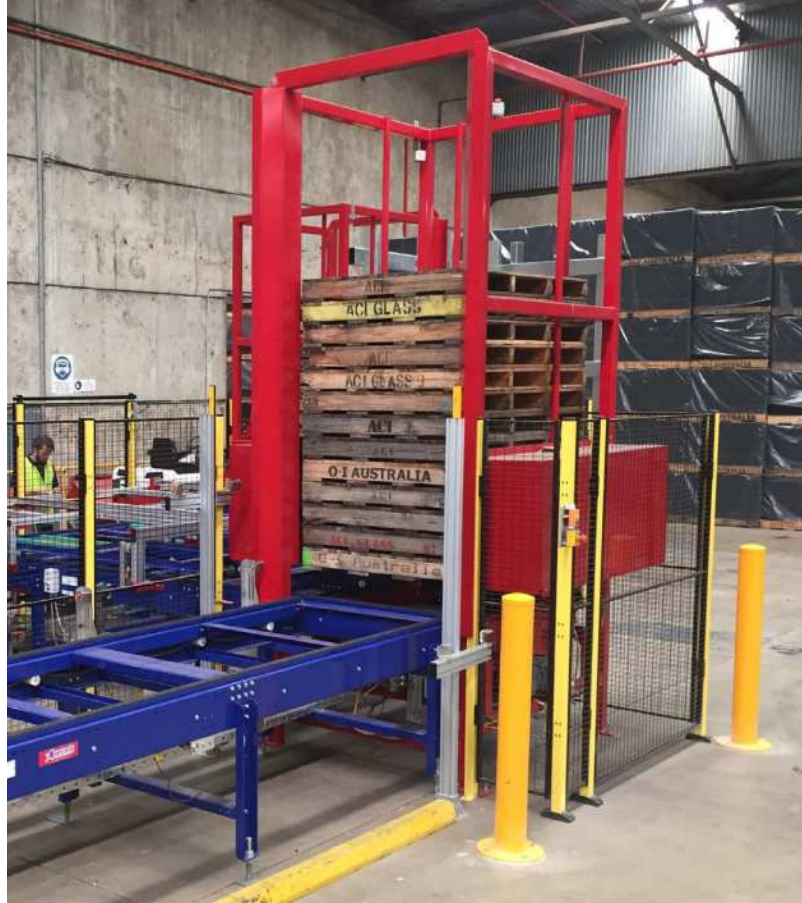
Our staged approach to custom development also means risk is minimised at every step.



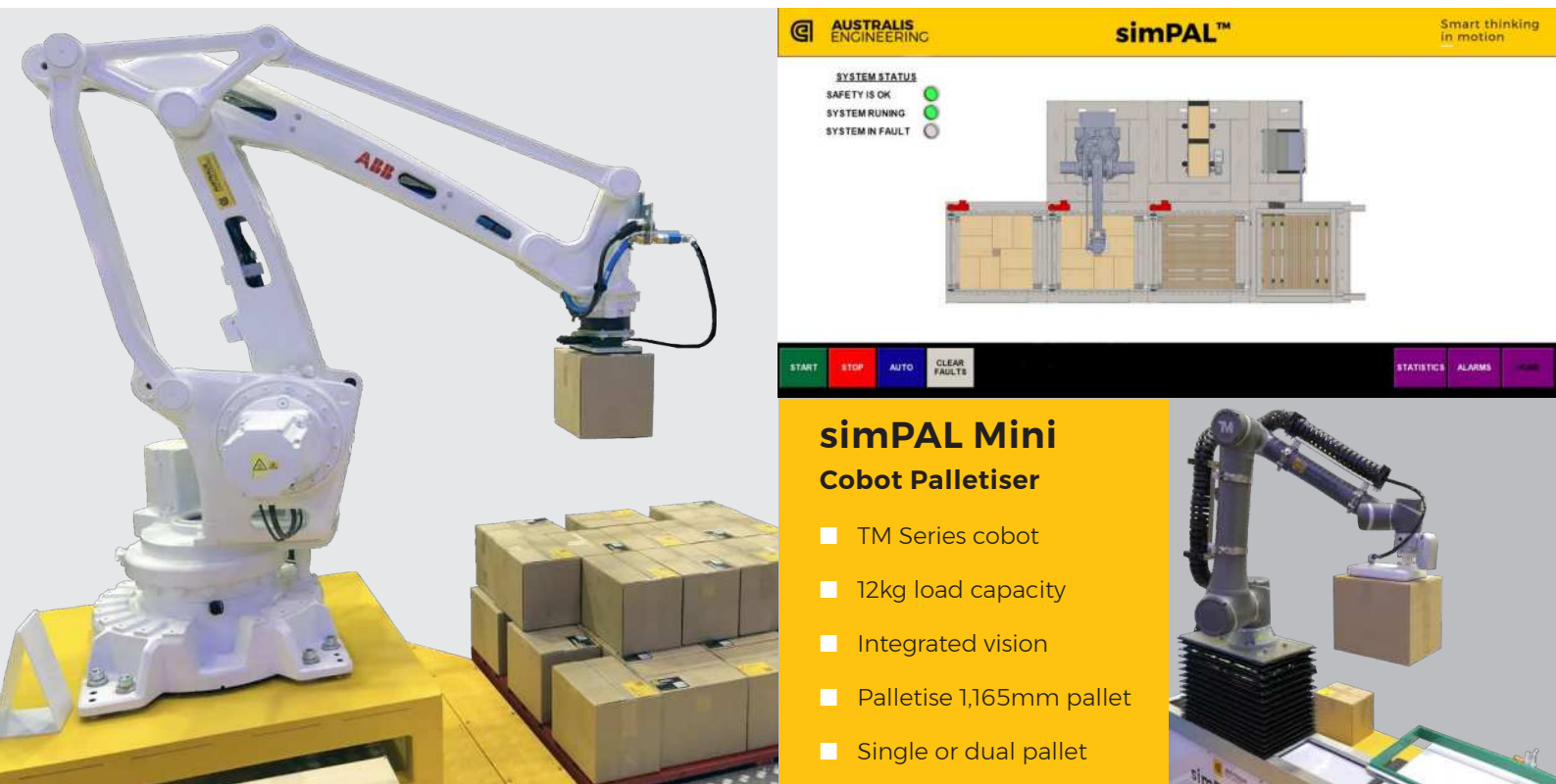
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## Pallet handling options

- **Pallet conveyors**
  - dual, triple and quad chain
  - light, medium and heavy duty rollers
  - powered or gravity rollers
- **Destackers/stackers**
- **Magazines**
- **Inverters**
- **Turntables**
- **Pop-up transfers**
- **Transfer pushers**
- **Recycling, repair, dismantling and board removal**
- **Inspection, fully or semi-automatic options**
- **Washers**
- **Elevators**
- **Wrappers**
- **Slip sheet dispensers**
- **Top sheeters**
- **Strapping**
- **Labelling**
- **Double stacker**
- **Depalletising**



# The genius of simPAL®



**simPAL® is a collaboration of smart software and smart hardware to allow for highly flexible palletising solution.**

Due to its modular nature, installation is expedited, reducing downtime and cost. A typical simPAL system can be brought to site, bolted down and connected quickly and easily. Each simPAL Tile includes integrated wiring with quick interconnecting plugs and is self-contained with its own field IO module/s networked to the simPAL Controller for connection of sensors, pneumatics and motor controls. Integrated safety panels connect directly to the Tiles and include normal fence panels as well as access gates, which are safety interlocked.

simPAL software provides long term future proofing benefits. Without the need for complex programming, the user can easily generate new pallet patterns, enter new products and save new recipes. simPAL features an Automatic Pallet Generator that creates an optimised pattern or where there are multiple patterns available, allows the user to choose their preferred option.

**Support is key to the Australis service. All simPAL systems have online provisioning for remote service and support.**



## A Modular Robotic Palletising System

- 10 different modules available
- Each module pre-wired to interconnect modules
- Easy to use touchscreen software features an Automatic Pallet Generator
- IIOT connected
- Multiple standard grippers available to suit many product types
- Robot capacities from 110kg to 450kg
- Designed to ship inside a standard shipping container
- Cobot palletiser option

## Tailored solutions

simPAL uses 10 core function Tiles that are used to create a tailored palletising solution.

- **simPAL Controller**
- **Robot and gripper**
- **Product Infeed Conveyor**
- **Pallet Conveyor**
- **Pallet 90 degree transfer**
- **Pallet turntable**
- **Pallet layer/slip sheet magazine**
- **Pallet Magazine and destacker**
- **Pallet floor positioning jig**
- **Blank tile**

## simPAL® examples

simPAL Tiles can be combined in many different configurations. As production needs change, the same system can be reconfigured and extended by adding additional simPAL Tiles.



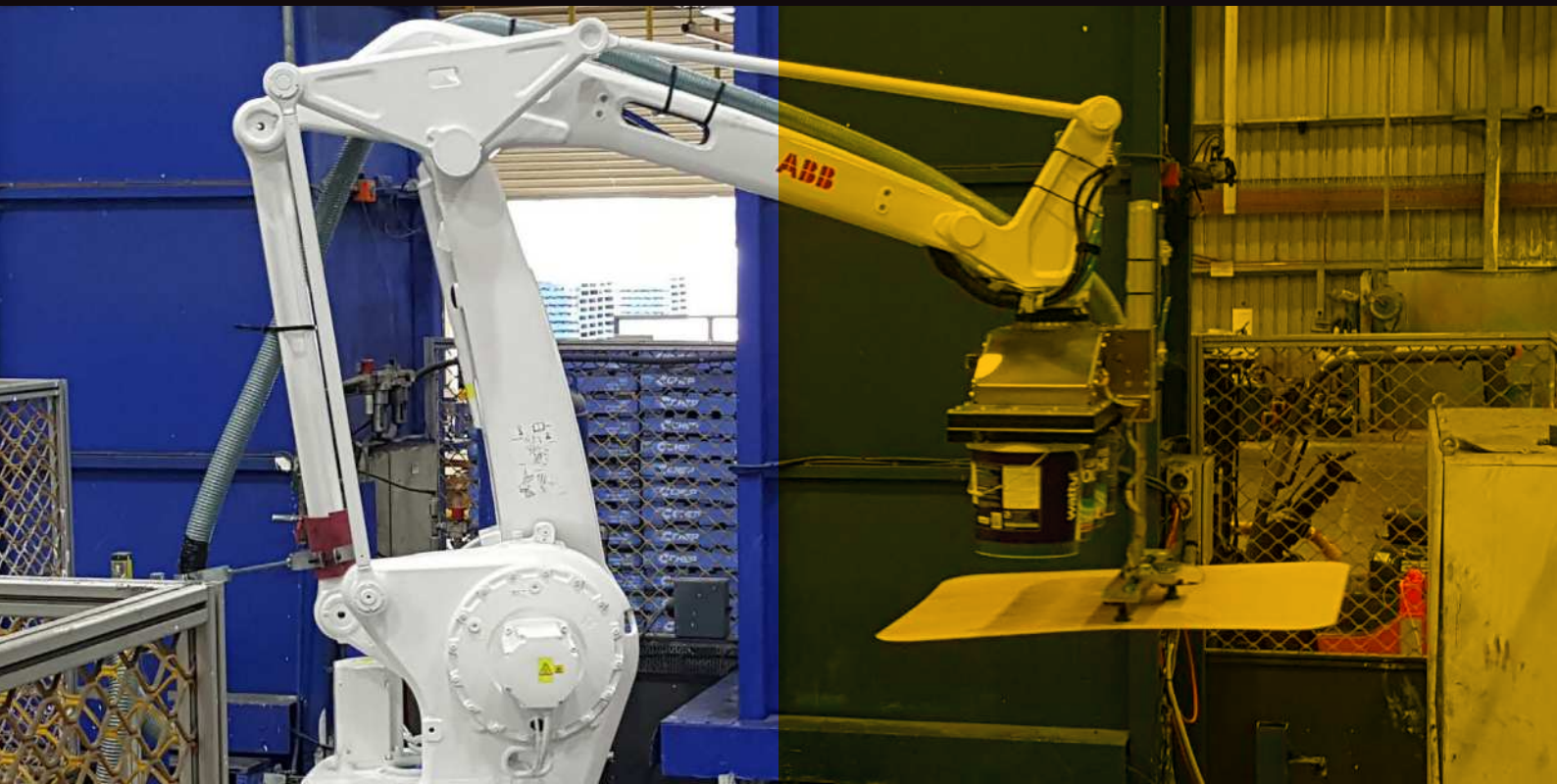
**Single Pallet simPAL**  
replaces hand stacking



**Dual Pallet simPAL**  
flexibility for multiple products or continuous palletising



**Single Pallet simPAL with integrated pallet handling**  
Integrated with pallet conveyors, stacker and slip sheets



# Smart robotics

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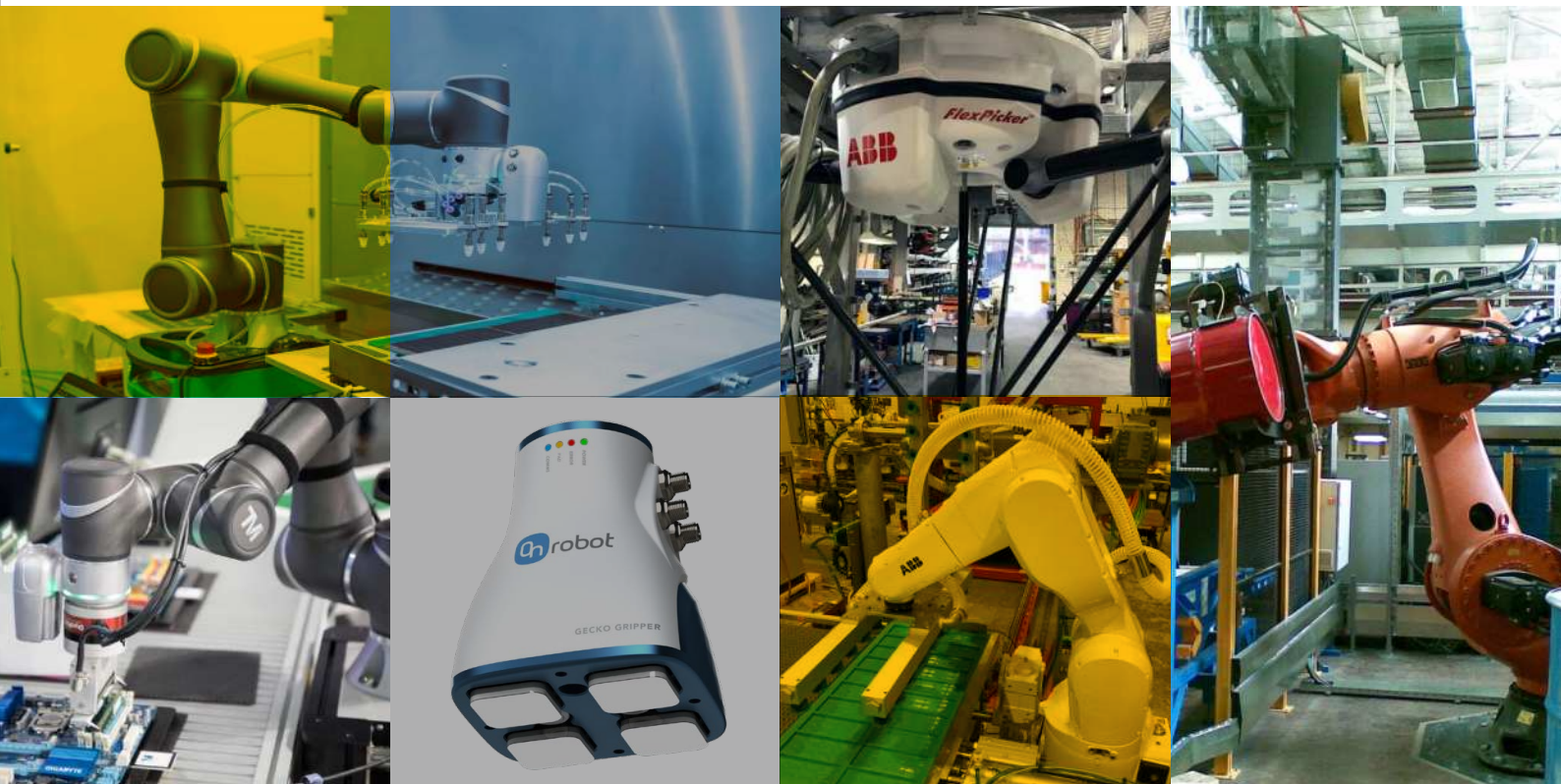
With the global explosion in industrial robotic systems, it is more critical than ever to ensure your robotic system provider is not just a simple supplier but a smart turnkey integrator. There is much more to a robotic system than just the robotic arm; Australis specialises in the design and implementation of custom designed robotic solutions including gripper and end of arm tooling design and fabrication, design and integration of infeed and outfeed systems, integration of vision and tracking systems, plus development of customised software to meet the demands of industry across multiple sectors.

Australis Engineering is an ABB Robotics channel partner and integrator and Australian distributor for TM Robot collaborative robots. Australis are also experienced integrators of Kuka and Yaskawa-Motoman robots; this combined experience allows us to supply a wide range of solutions to suit many and varied robotics applications.

## **Australis Robotic Solutions include:**

- Assembly systems
- Pick and Place systems
- Multi-robot co-operative systems
- High speed packing
- Robot tracks and mobile robot solutions
- Collaborative robot systems
- Palletising and Depalletising
- Decanting Systems
- Machine Tending
- Integrated QA and Vision Inspection
- Robot and AGV interfacing





## Robot grippers and end-of-arm tooling

Key to a successful robot project is much more than just the 'off-the-shelf' robot – turning the robot into a smart system is all about the additional items attached to and surrounding the robot. With our background in mechanical design, we place a strong emphasis on getting these elements right.

### Our grippers include:

- Multi-stage mechanical and vacuum grippers
- Multi-product grippers
- Grippers for collaborative applications
- Full layer grippers for palletising and depalletising
- Bespoke designs for unusual parts
- Grippers for extra heavy or extra large payloads (we have gripped and moved 800kg items for example)
- Servo driven grippers for precision and speed
- Magnetic grippers
- Vacuum pad or vacuum cup grippers with multiple zones
- Integrated vision for product detection
- Quick-release tool changers (fully automatic or semi-automatic)

Authorized  
value  
provider

**ABB**

**TM**  
ROBOT

### Certified ABB Channel partner

Australis is a certified ABB value provider for robotics.

### TM Robot Australian distributor

Australis is an official Australian distributor of Techman collaborative robots.

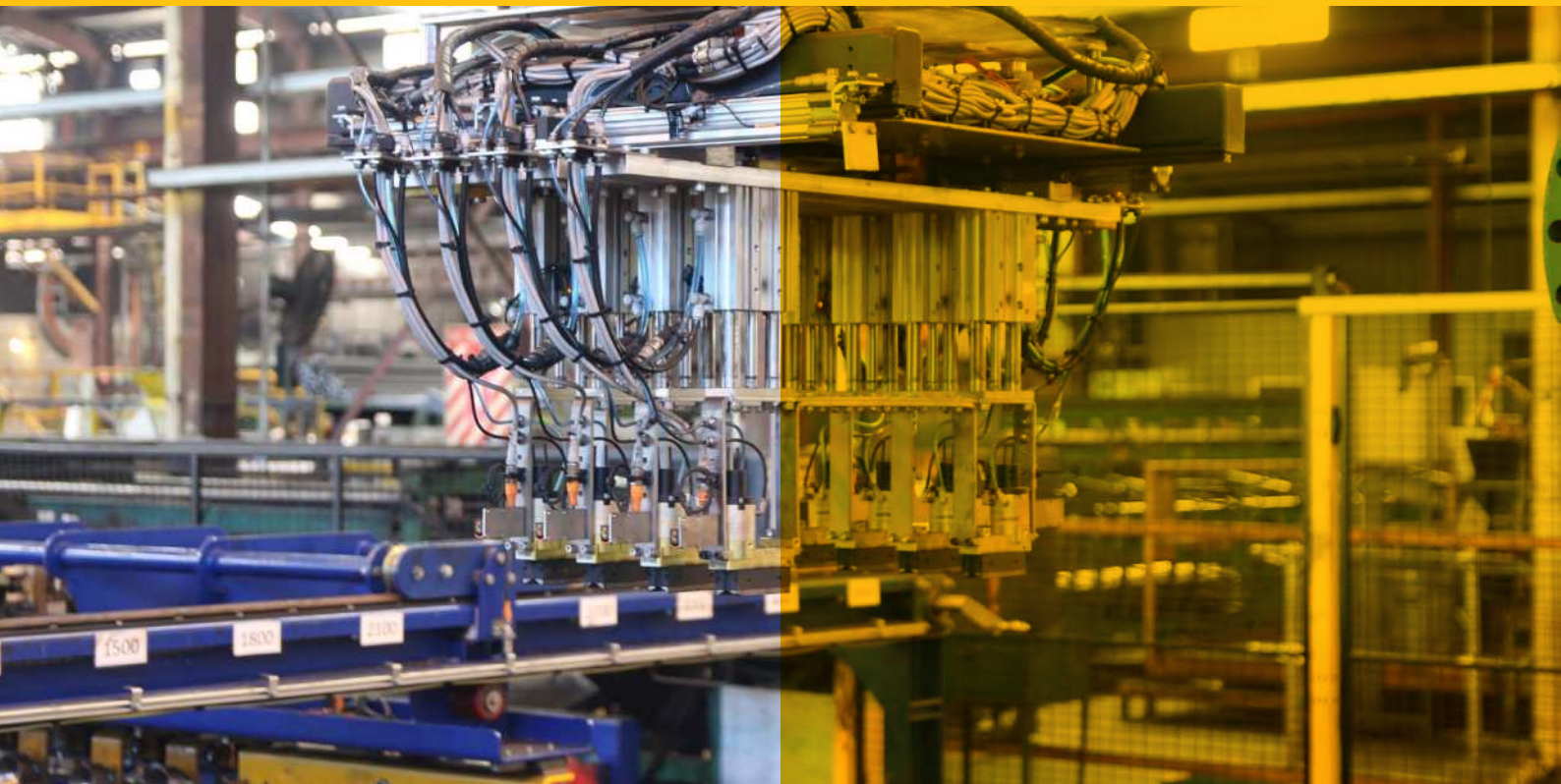
We also offer KUKA, Fanuc, Motoman and Omron robots to suit a wide range of different applications.

**OnRobot**

### OnRobot Australian partner

Australis is a certified partner for OnRobot plug-and-produce end-of-arm tooling (EoAT) for collaborative applications.





# Smart industrial automation

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Australis Engineering's industrial automation expertise draws from our many years of providing mechanical solutions and expands on this experience by adding the most advanced automation systems available in the world today.

Combining this expertise with our robotic and IIOT offerings, Australis can provide a complete automation solution across a range of industrial applications.

|| Great engineering and automation capabilities and the guys are very good to work with."



We offer smart automation solutions including discrete parts handling, pick and place, vision integrated robotics, palletising and depalletising, sorting, collation and accumulation and customised solutions.

**Our automation capabilities allows us to tie in new and existing systems into a single, integrated platform. We are trained in the following brands and more:**

- Allen-Bradley, Omron, Siemens, IFM Efector and Beckhoff PLC and industrial automation platforms
- Experienced in industrial communications networks such as Ethernet IP, AS-i, TCP/ IP, Profinet, Profibus and EtherCAT

**SCADA and MES software system applications allow for the monitoring and recording of machine and system performance.**

This provides our customers with the intelligence to fully optimise their systems and minimise the risk of downtime and stoppages.

- IFM LineRecorder and SmartObserver software for real time monitoring and information capture for reporting and preventative maintenance
- SAP and other ERP integration

Customer's don't need to engage multiple suppliers. Coupled with our mechanical capabilities, we offer in-house electrical design and development services including:

- System schematics
- Panel design and build
- Centralised and distributed IO and control systems technologies



# Special purpose equipment

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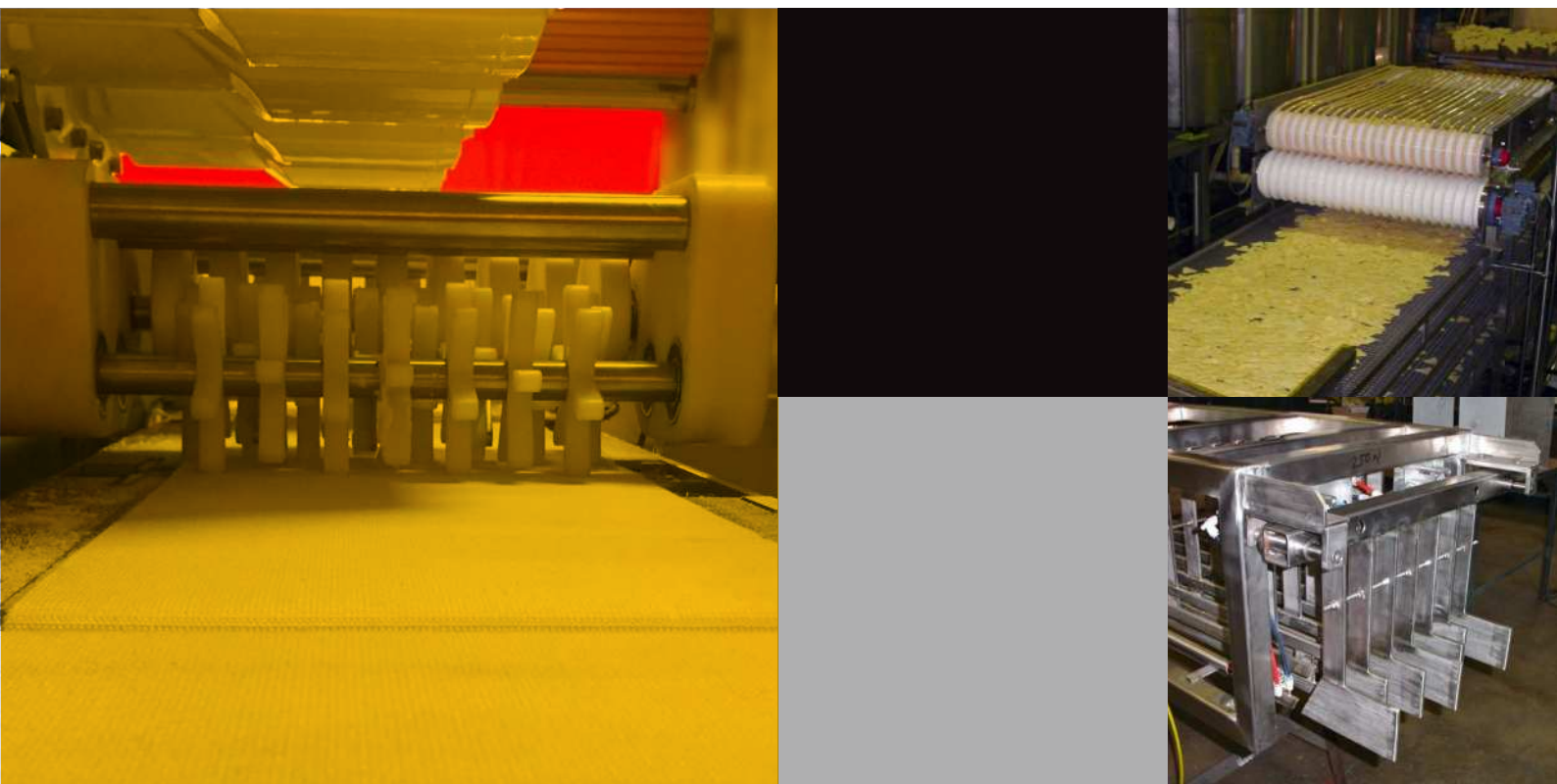


## Special purpose equipment is a hallmark of Australis Engineering.

With a strong history in R&D we are adept at design consultancy and proof of concept including 3D design and animation. With client collaboration our team can then take these concepts through production design into fabrication, testing, installation and to final commissioning. Our approach begins by creating a partnership with our clients and getting to know their business and products. Tapping into this knowledge is key to a successful outcome.

This knowledge forms the keystone of our design and combined with our industry experience, is used to craft equipment solutions that utilise cutting edge technology, automation and IIOT controls.

Our staged approach to custom development also means risk is minimised at every step. This reduces investment and ensures optimum results.



- Robotic and hard automated solutions
- Parts handling, separation and orientating
- QA, inspection and vision
- Cutting, welding, forging, gluing and pressing
- Pick and place
- Accumulation and in-process, buffer storage
- Single filing and laning
- High speed counting
- Product rejection
- Product stops, transfers and diverts
- Bulk product handling
- Elevating and lowering
- Handling soft, pliable, sticky or other difficult products
- Machine tending
- Roll-on/ Roll-off and truck loading
- Hazardous and explosive environments
- Clean and hygienic environments



# Smart packing and packaging

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Australis packaging systems are designed to 'grow as you grow'. We specialise in helping client's maintain flexibility while expanding

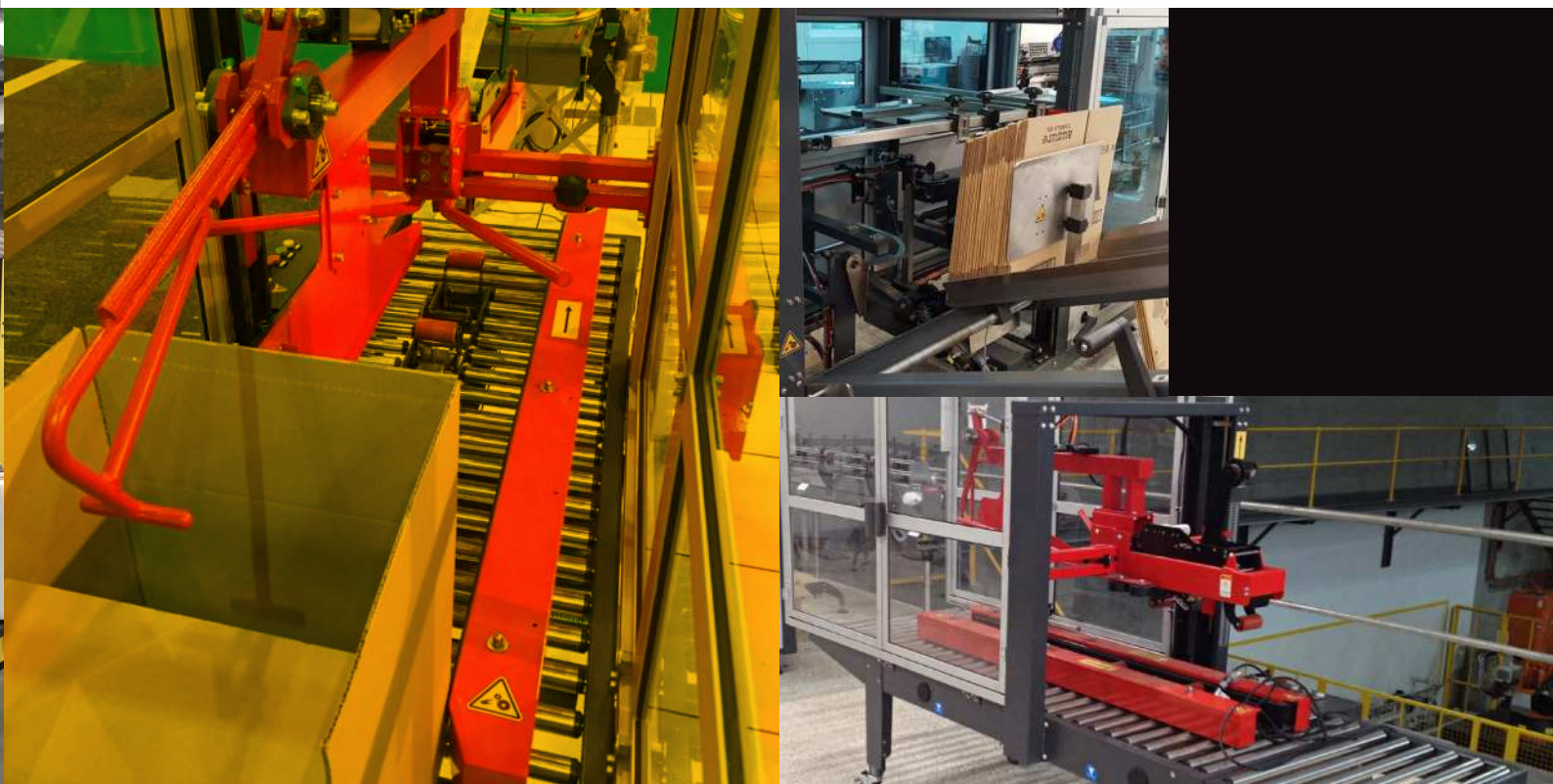
Our packaging systems are available in a variety of ranges from semi or fully automated solutions, to stand alone machines for erecting, sealing, and/or wrapping.

Australis also represent, integrate and service a number of high quality European and American brands and combined with our own automation solutions, these products provide a complete packaging system.

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## Packaging

- Robotic pick and place
- Linear pick and place
- Collaborative robotics
- Wrap-around
- Case-over-product (COP)
- Insertion style
- Product infeed and collating systems



## Packaging and End-of-line

- Carton erectors
- Carton sealing (tape or hot melt glue)
- Shrink wrapping
- Stretch wrapper
- Strapping/ banding
- Bag in box
- Carton filling
- Packing stations (semi-automatic and automatic)



# Smart inspection systems

## Australis Engineering are one of a select group of official SICK Integrator Partners.

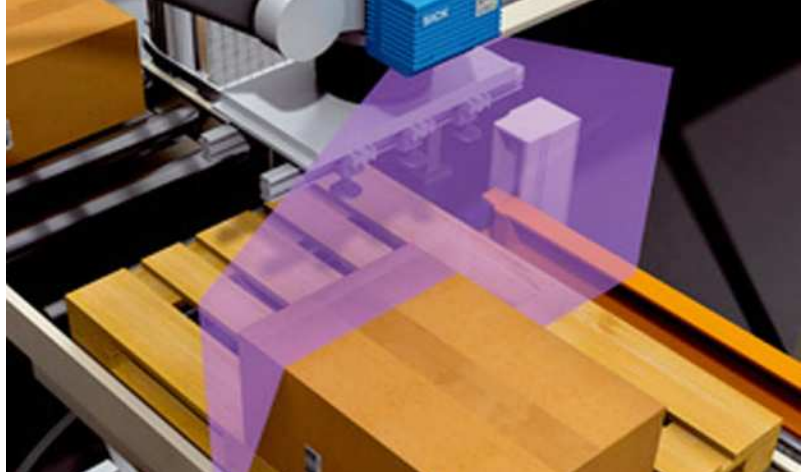
This partnership provides us with expertise to specialise in 2D and 3D camera applications for inspection and validation across a diverse range of applications. These applications include high speed inspections, high care or high variation environments, shape and size detection, barcode reading, OCR and others.

Our solutions use standard camera and detection equipment, combined with custom developed algorithms and programs for each application. This use of standard software 'blocks' means a customised solution can be developed quickly and efficient for the majority of applications.

Combined with our smart conveyor, diverting or sorting technologies, an Australis inspection system can provide an all-in-one solution to many inspection, rejection or sorting problems. The combination of inhouse design and programming means a solution developed to meet your exact needs.



**Integration Partner**



# Smart sorting and diverting



The key to any reliable system is keeping the product under control at all times. This is the key design criterion for all Australis diverters or sorting systems.

## Our Technologies

- active and passive lane diverters,
- zero touch diverting,
- right angle and pop-up transfers,
- gating and chute systems, as well as sorting of products based on physical characteristics such as size, colour or weight.

## Our Options

- Active scanning including 1D and 2D barcodes reading
- 3D laser scanning
- colour or shape detection and/or weight measurements

Scan data can be recorded against a product barcode or identifier within a database for use in production records, or even for integration to an ERP system such as SAP or Oracle. Desktop, mobile phone and tablet reports can be easily generated for up-to-the-minute status of your production anywhere in the world.

## Diverting systems:

- One in, multiple out, including platen carrier, active roller belt and pusher styles
- Right angle transfers including pop-up, turntable or pusher styles
- Gating and chute systems
- High speed options available

## Sorting systems:

- Multi-product identification
- Size and weight
- Colour
- Product rejection
- Product distribution





# Smart service and maintenance

Combined with our remote AETHER service, onsite Service and Maintenance is a key additional benefit of working with Australis Engineering.

Our team of mechanical and electrical technicians can provide service on all Australis equipment as well as many other pieces of production equipment within your plant.

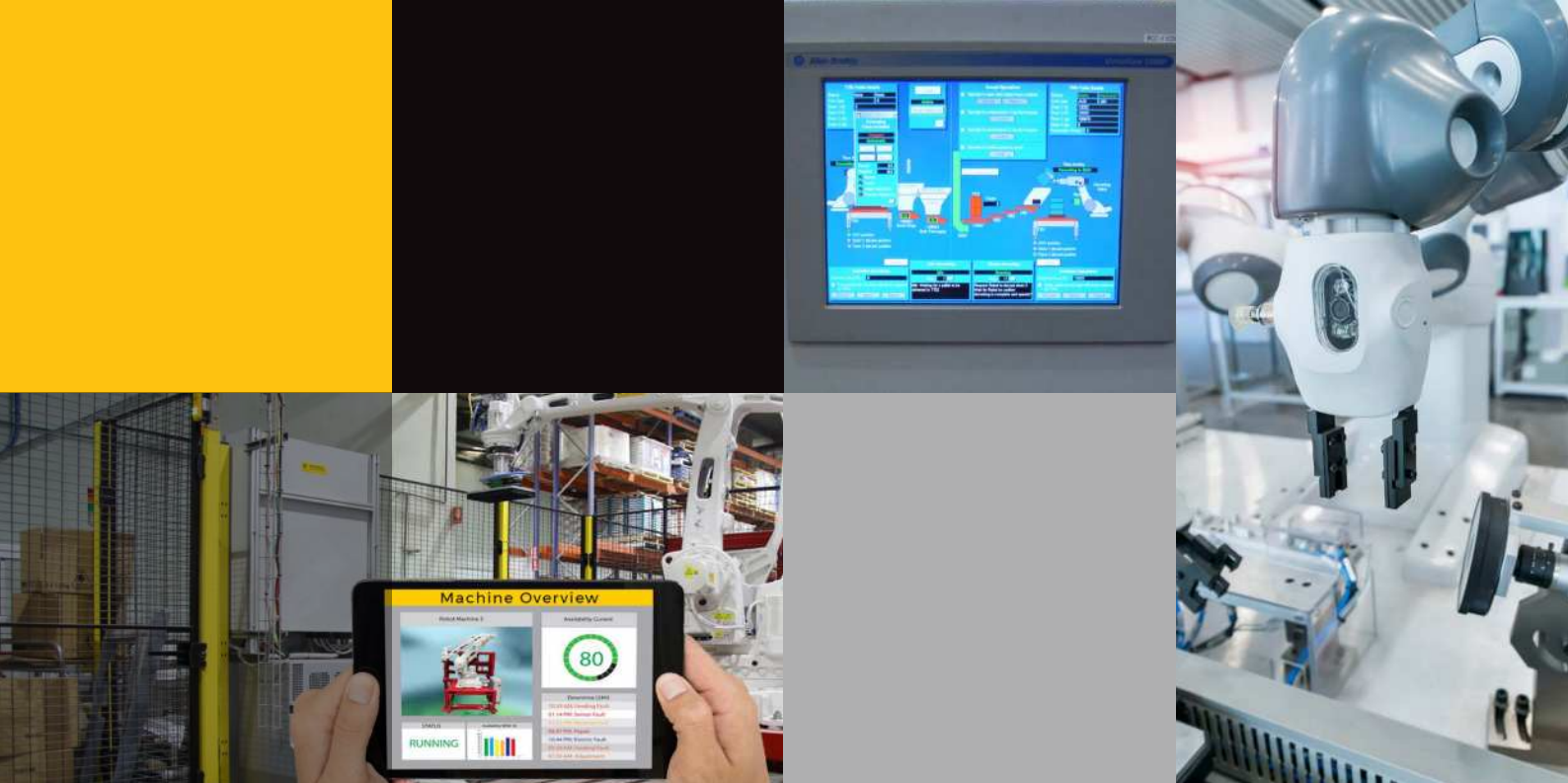
Australis Engineering can provide same day or next day break down assistance along with programmed preventative maintenance and annual or regular shut down maintenance on most machinery types.

- We also offer factory or line relocation services.
- Our customers benefit from shorter shutdowns as we typically utilise tradespeople with both electrical and mechanical skill sets.

We have broad experience with a large range of manufacturing equipment, including:

- All types of conveyors
- Bucket elevators
- Palletisers and depalletisers
- Robotics, including programming faults
- Pallet handling equipment
- Carton erectors, tapers, bag-in-box machines and similar
- Fillers, depositors, re-torts
- Labellers and scanners
- Electrical systems
- Automation systems

We can service or repair either our own machines or similar equipment from other suppliers.



# AEther smart interconnection

Industrial Internet of Things (IIoT) has resulted in an explosion of data.

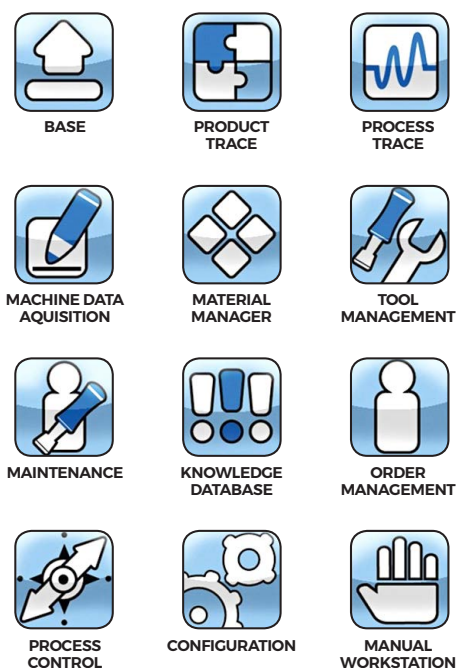
Used well, this data results in increased efficiency, increases in production, better quality assurance, increase energy efficiency, decreases in downtime and reduced maintenance costs.

Our AEther service allows for remote connection of machines, both new and old and for the information to be readily available on a central dashboard providing both real time data and historical data. Users can access their personal dashboard, featuring just the information useful to them, from a range of devices including PC, tablet and Smartphone.

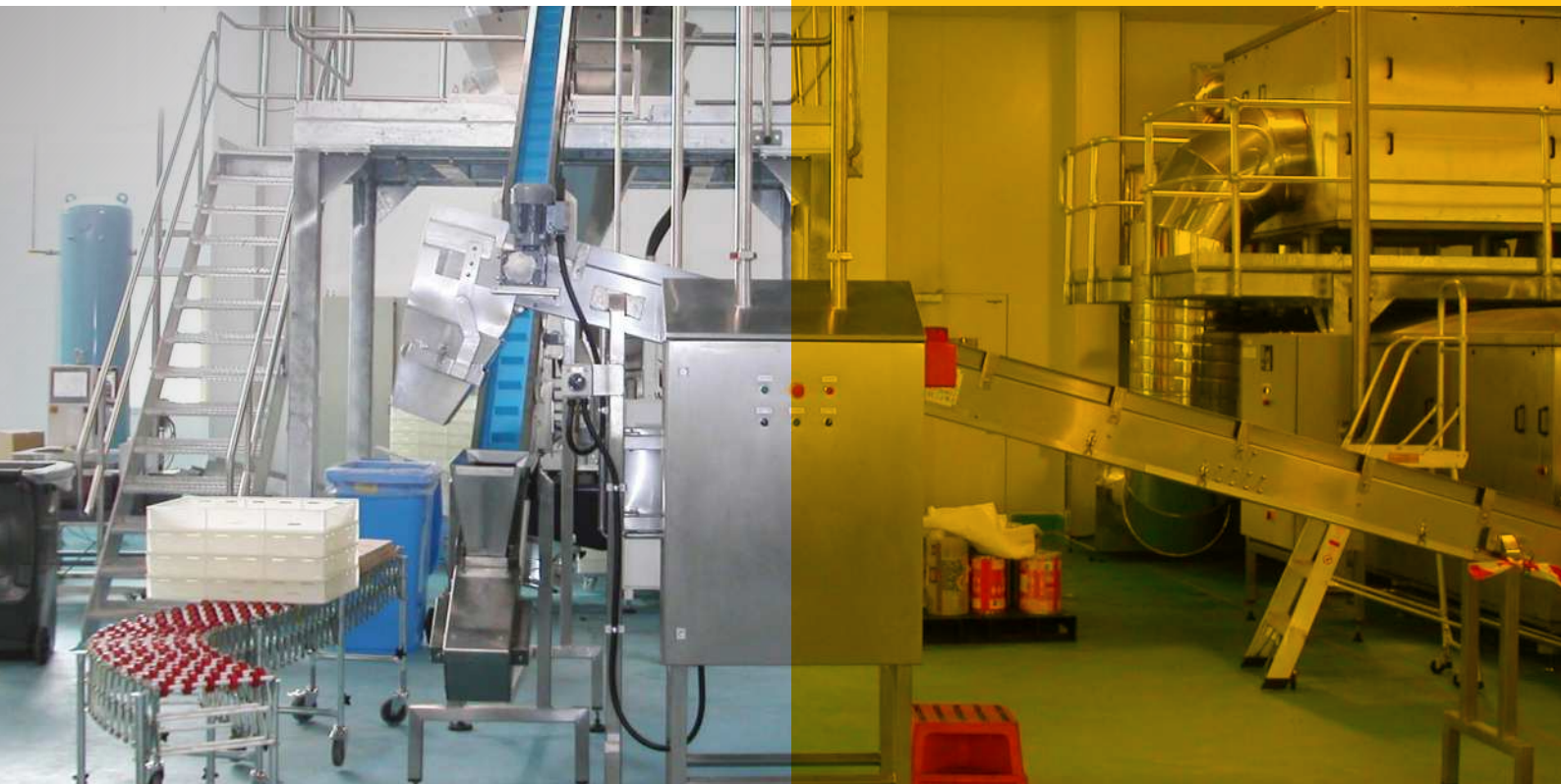
Machine Connections can be direct to Sensors, IOLink devices, and/or machine PLCs, while AEther will also connect to SAP, Oracle and a number of other ERP systems.

- Interconnected machines allowing for more efficient control philosophies and data acquisition.
- A user customisable dashboard for key reports, metrics and performance data.
- Real time monitoring, alerts and historical data and reports.

## AEther standard modules





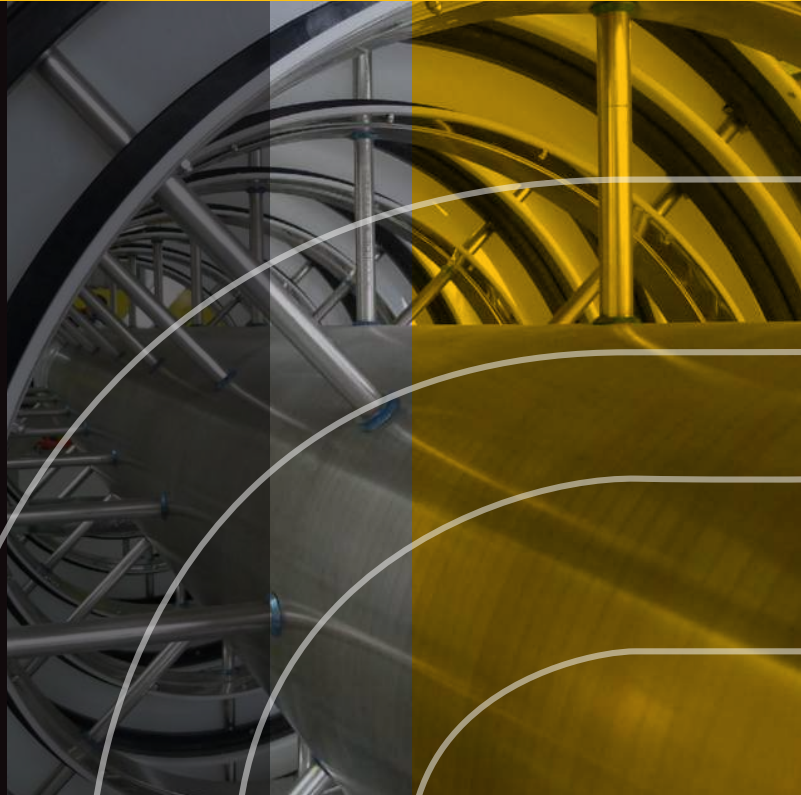


# Smart thinking in motion

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|| Excellent support and robust and cost effective solutions for our materials handling problems.”

CONVEYORS  
PALLET HANDLING  
PALLETISING  
DEPALLETISING  
SINGLE FILERS  
INDUSTRIAL AUTOMATION  
ROBOTICS  
LINE CONTROL  
BUCKET ELEVATORS  
SPIRAL CONVEYORS  
PALLET WRAPPERS  
CARTON FORMERS  
CARTON SEALERS  
TRAY FORMERS  
ENROBERS  
TEMPERING MACHINES  
COOLING TUNNELS  
MELTING TANKS  
CUSTOM EQUIPMENT  
DESIGN CONSULTANCY  
TURNKEY SYSTEMS  
DEVELOPMENT & PROTOTYPING  
SERVICING & MAINTENANCE



[australiseng.com.au](http://australiseng.com.au)





**AUSTRALIS**  
ENGINEERING

# The smart choice

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**Contact us today to  
discuss your next project**

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