AUSTRALIS
ENGINEERING

simPAL®
Robotic
Palletisers

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 module 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 remote provisioning remote service and support.

A Modular
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
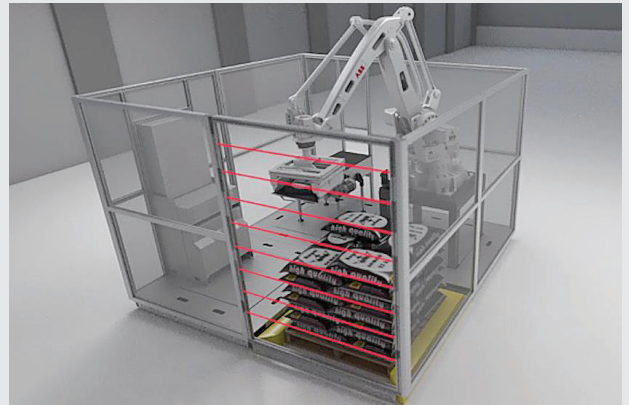
Tailored solutions

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
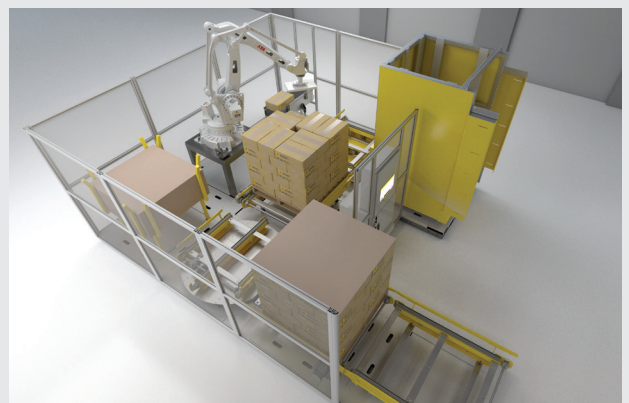- **■** Blank tile

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 slipsheets

simPAL®

10 Different Modules Available

Pre-wired Modules

Each simPAL Tile includes integrated electrical and data wiring within the base module. We even use quick connections to ensure rapid field deployment.
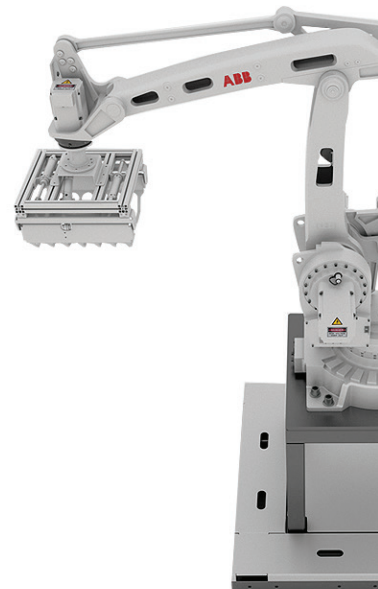
Pallet Generating Software

simPAL includes an on-board pallet generator that easily allows you to create new pallet patterns using the user friendly HMI touch-screen.
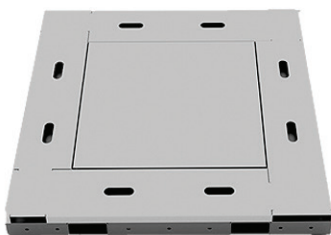
Control Panel

Pallet Conveyor

Robot

Blank Module

Slip Sheet Frame

Infeed C

Multiple Gripper Types

Engineered to accept standard grippers including Box Grippers, Bag Grippers, and Bucket Grippers.

Fully customised grippers are also available.

Integrated Safety

Safety fencing attaches directly to each base module. Light curtains are available for product infeed, pallet infeed and pallet removal.

Rapid Deployment

simPAL is designed to ship within a standard shipping container. With its modular design, integrated electrical and data wiring and our innovative simPAL operating system, a simPAL palletiser can be deployed rapidly at virtually any site world-wide.
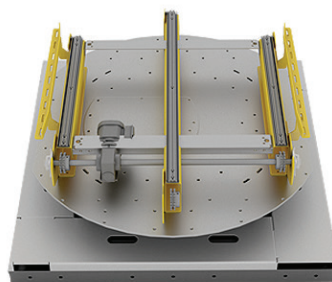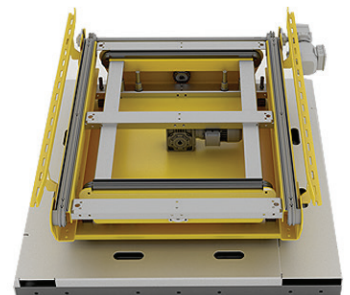
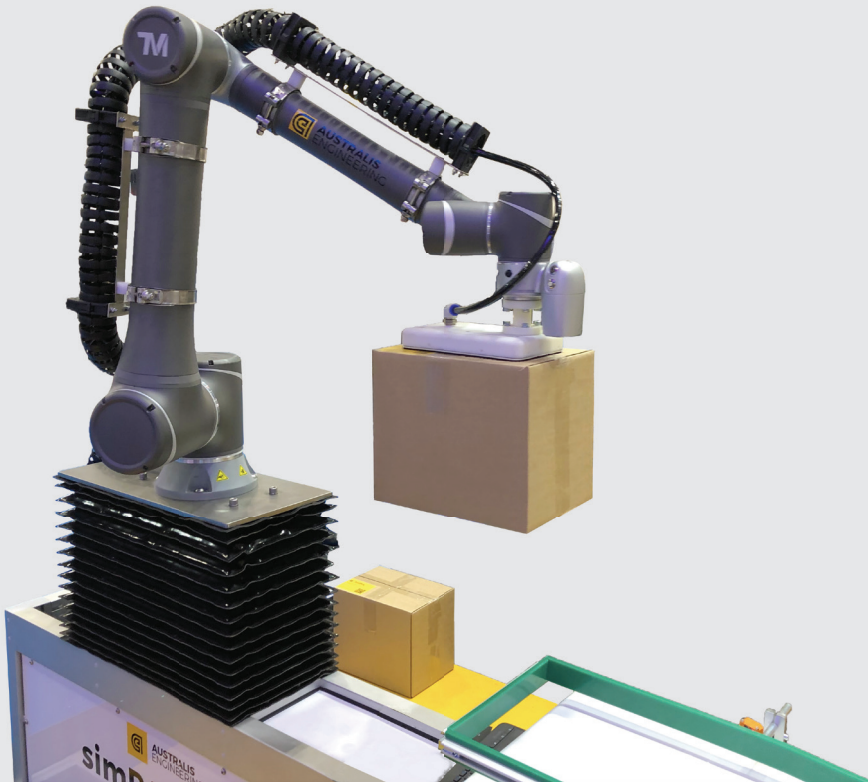**Plinth**

Destacker

Floor Stacker

Conveyor

Turntable

Pop-up Transfer

simPAL® Mini cobot palletiser

The simPAL® Mini cobot palletiser is a combination of smart software and smart hardware creating a highly flexible, cobot palletising solution.

simPAL Mini features a collaborative robot by Techman Robots. Utilising a collaborative robot on the simPAL Mini Palletiser means we use minimal floor space - just 270mm wider than the pallet.

simPAL Mini includes advanced vision-based QA which utilises the in-built 5MP camera on the TM Robot allowing the cobot to read bar codes and QR codes to simplify palletising operations.

To ensure operator safety, TM Robot's have inbuilt safety features meaning they operate without the need for guards. This is an important cost and space saving benefit and enables simPAL Mini to be deployed in the smallest footprint possible.

simPAL® Mini overview:

- Uses TM12 12kg, 1300mm reach cobot or TM14 14kg, 1100mm reach cobot for Euro style pallets
- Palletise onto an 1165mm pallet with offset gripper and subject to box size
- Single or Double pallet configuration
- Integrated vision system easily identifies bar codes and QR codes for productrecognition
- Standard vacuum gripper suitable for a range of box sizes and weights. Other grippers optional.
- Palletise up to 8 cycles/ minute subject to box size
- Integrated infeed conveyor
- Cost effective replacement for manual palletising
- Fast set-up and operation
- Easy to programme and operate using either our simPAL software or TM-Flow software on the cobot

Operating System

The heart of any simPAL® system is our software. Developed in-house and building on more than 15 years of palletising experience, our simPAL software allows new products to be palletised easily without additional and expensive programming.
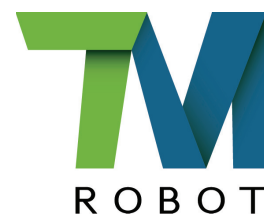
simPAL software provides future proofing benefits. Without the need for complex programming, the user can easily generate new pallet patterns, enter new products and save new recipes. simPAL features an Automatic Pallet Generator that creates an optimised pattern or where there are multiple patterns available, allows the user to choose their preferred option. The user can also create their own custom pallet pattern direct on the touch screen in a matter of moments.

Coupled with the lead to teach capabilities of a Techman cobot and its own on-board TM-Flow software, programming a simple pick and place with simPAL Mini can be achieved in less than 5 minutes.

TM Palletizing Operator

TM Robot's all in one solution for palletising automation. Includes built in TM software to assist users to setup their palletising specifications quickly.

- 17 certified PL=d cell level safety functions
- Up to 7 boxes/ minute
- Maximum stack height of 1900mm, typically 1200mm
- Suits up to 1165mm pallet (subject to box size)
- TMstudio Palletizing Wizard – Simple palletizing set up with simulation and collision detection.

Official TM Robot Distributor

Australis Engineering are official Australian disributors and integrators of Techman Robot collaborative robots.
Australis are certified to offer Basic and Advanced TM Robot training.

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The smart choice

Contact us today to discuss your next palletising project

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