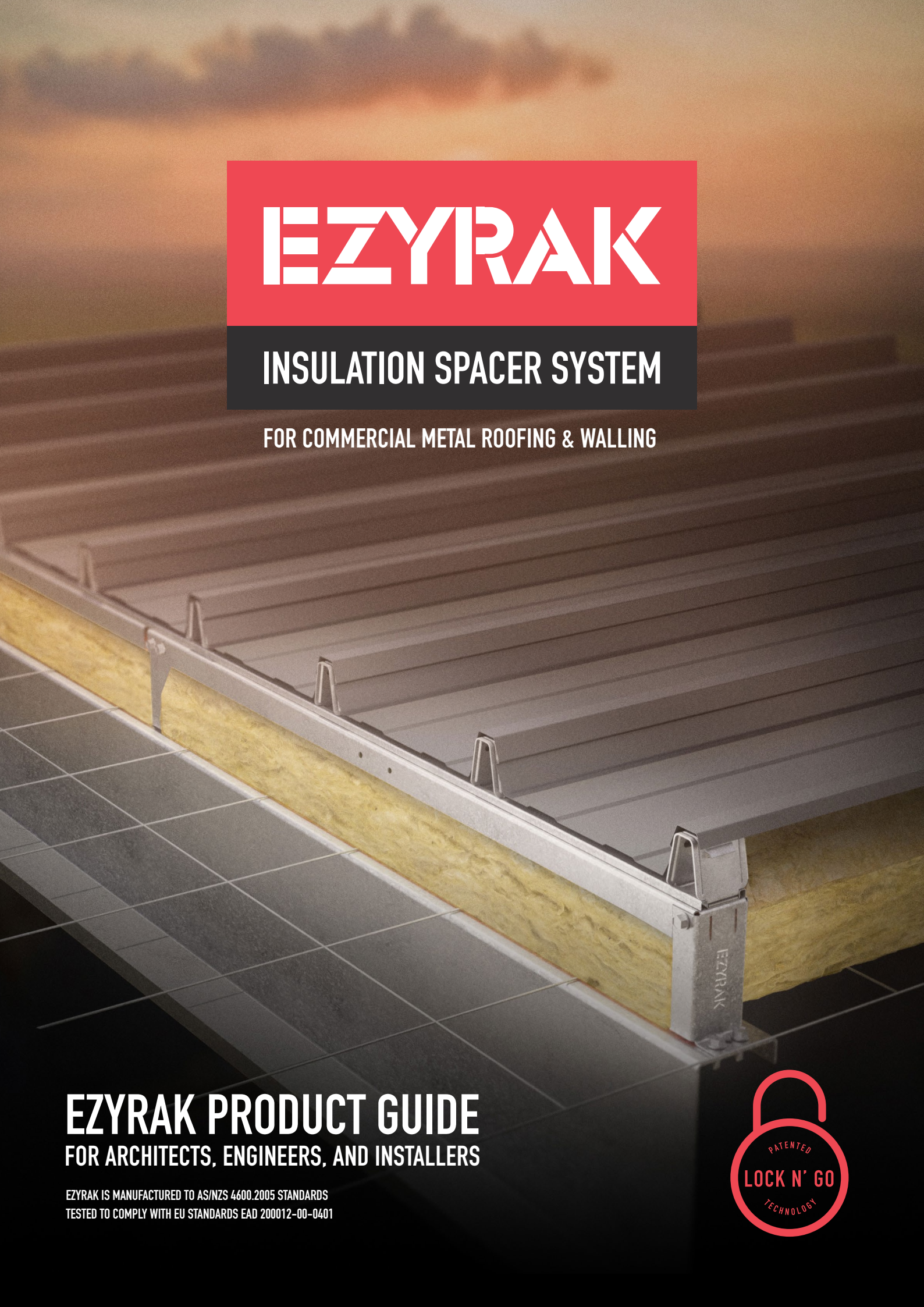
# EZYRAK

## INSULATION SPACER SYSTEM

FOR COMMERCIAL METAL ROOFING & WALLING




# EZYRAK PRODUCT GUIDE

## FOR ARCHITECTS, ENGINEERS, AND INSTALLERS

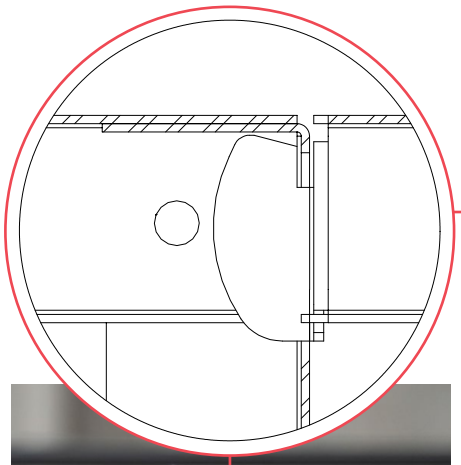
EZYRAK IS MANUFACTURED TO AS/NZS 4600.2005 STANDARDS
TESTED TO COMPLY WITH EU STANDARDS EAD 200012-00-0401

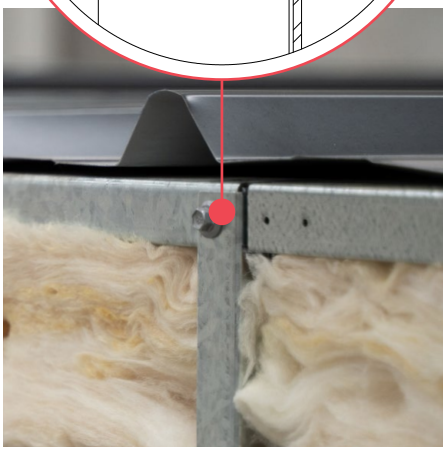
PATENTED
LOCK N' GO
TECHNOLOGY

# WHAT IS EZYRAK?

The **EZYRAK** spacer system is an insulation spacer for metal roof construction that is made from hi-tensile steel and is tough, quick, and easy to install. Suitable for all roof profiles; the system comprises of L-shaped bars that connect to each other by the patented **Lock n Go** connection.

**EZYRAK** sits between the roof or wall structure and the external metal roof sheet or cladding, creating a space for insulation, maintaining its position and thickness, forming a continuous thermal barrier.





STANDARDS Australia

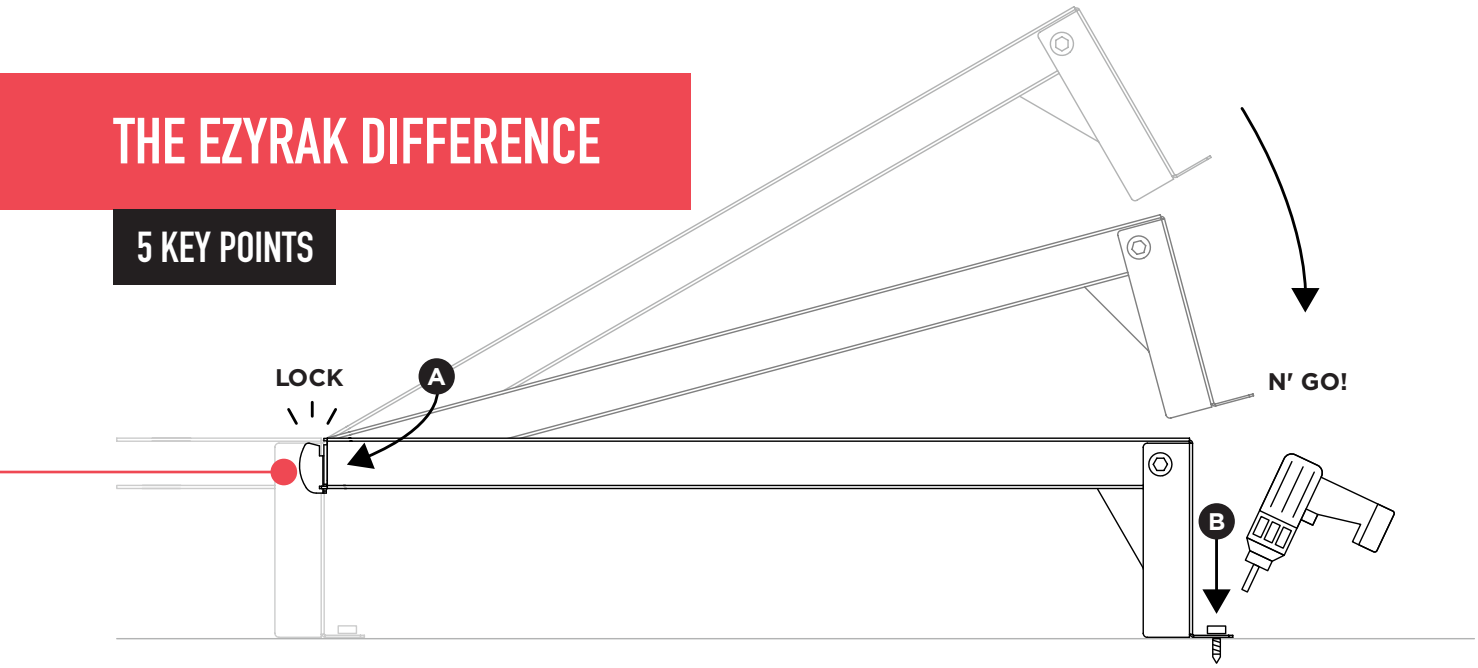
## SETTING A NEW STANDARD

**EZYRAK** sets a new standard in the industry, with its lightweight construction, structural capability, and revolutionary LOCK N' GO connection system.

Compliant to the applicable industry standards, manufactured to **AS/NZS 4600.2005**, and is tested to comply with EU Standards **EAD 200012-00-0401.**

# THE EZYRAK DIFFERENCE

## 5 KEY POINTS




1. **EZYRAK's** unique design benefits everyone on the build site. With its LOCK N' GO connection system, and only 2 screws per bracket, installation has never been faster.
2. Made of 1.2mm thick G450 Z275 material for strength and durability. The base points of contact have superior stability resulting in a safer installation; foot traffic is not an issue.
3. No need for extra long and difficult to align tekscrews!
4. The **EZYRAK** system is a structural member with metal roof and cladding sheets attached directly to the **EZYRAK** top surface.
5. **EZYRAK** is supplied packed in bundles of 12 and bulk palletized for efficient rooftop loading.

# INSTALLING THE EZYRAK ROOFING & WALLING SYSTEM

**Important Safety Notice**

Ensure all WHS (Work Health and Safety) requirements have been met for working at heights prior to commencing installation of the **EZYRAK** system.

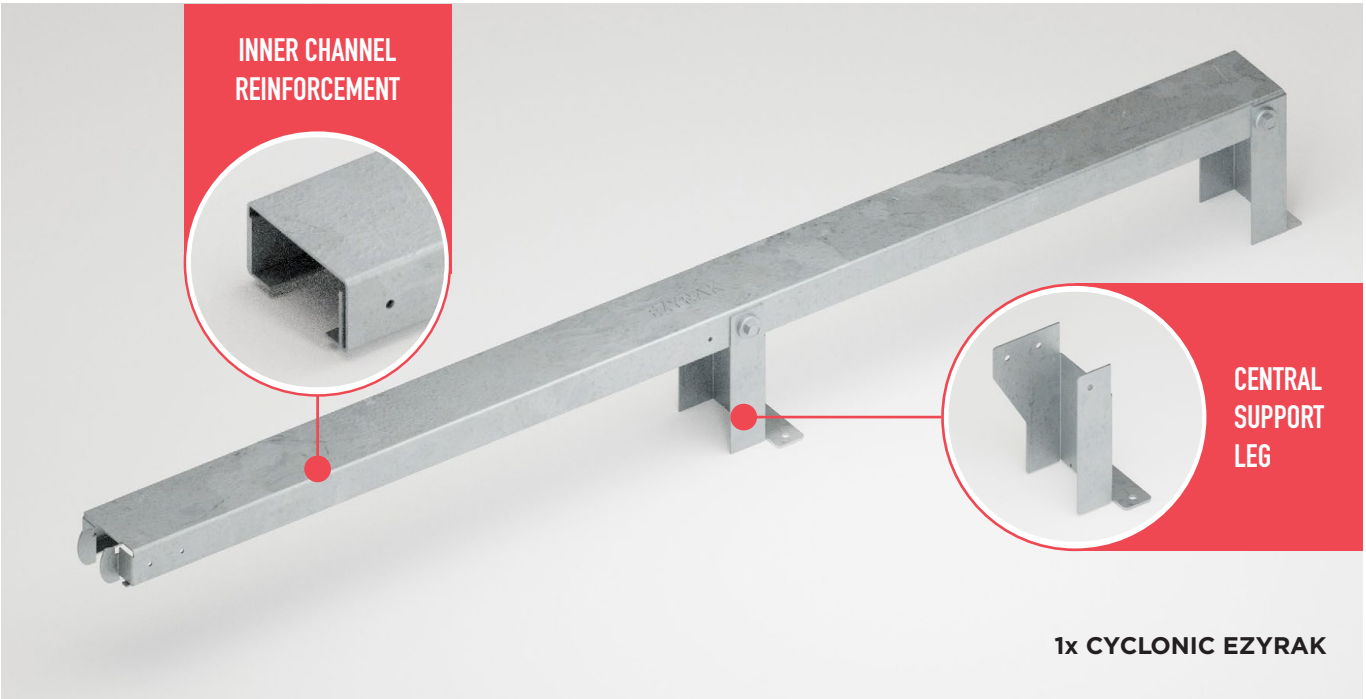
1. Ensure safety mesh is in place prior to commencing:
   Safety mesh must be 'taut' and installed in accordance with **AS4389-2015**.
2. Lay insulation blanket (foil face down or inward facing for wall application) onto the safety mesh. Avoid creasing or folding the roof blanket.
3. At the beginning of each purlin or wall girt run attach an **EZYRAK** starter leg to the first **EZYRAK** length with 2 metaltek screws (12x25).
4. Fix the first **EZYRAK** length (with starter supplied seperately) at the beginning of the purlin or wall girt run using 2 metaltek screws (12x25) through the pre-drilled location holes in each leg tab.
5. Connect the LOCK N' GO **EZYRAK** directly into the starter slots. **(Ref. A - Above Image)**
   Screw through the next **EZYRAK** leg tab **(Ref. B - Above Image)**
   Now repeat the process through to the end of the purlin or wall girt run.
6. At the end of the purlin or wall girt run, the last **EZYRAK** piece to be installed can be cut to suit the length required. Cut the EZYRAK and re-attach the EZYRAK midpoint leg using the metal screws.

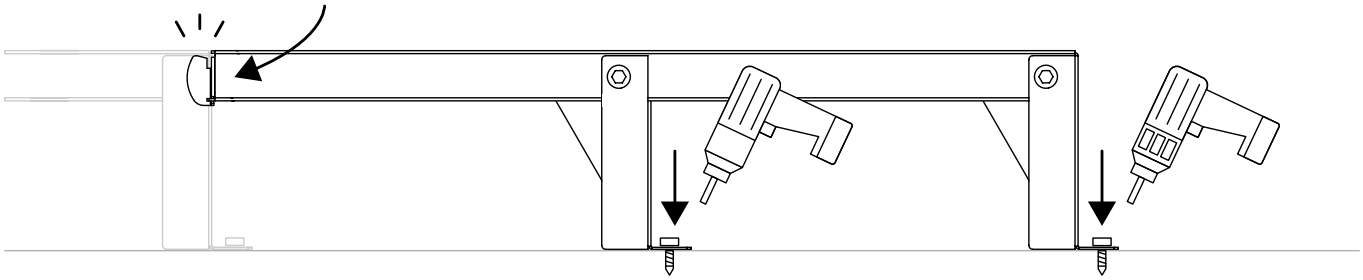

## EZYRAK SYSTEM FOR COMMERCIAL WALLING

EZYRAK insulation spacer system is suitable for both roof & wall applications. The installation process for walling is the same as detailed previously in the 6 step installation guide.

Ensure that the installation blanket is adequately tied to the safety mesh for ease of EZYRAK installation.

# CYCLONIC EZYRAK



For cyclonic based applications, an inner channel is pre-inserted inside the standard **EZYRAK** channel to offer an additional layer of reinforcement and stability.

The inner channel forms a robust and innovative support system designed to withstand the harshest of conditions.

This bolstered channel is combined with a central support leg to allow Cyclonic **EZYRAK** to achieve considerably high load ratings for both wind load (in kPa) and purlin load (in kN/m).

These innovations have made Cyclonic EZYRAK the ultimate roof spacer system for cyclonic applications. **Product pre-assembled as Cyclonic EZYRAK.**

## CENTER SUPPORT LEG OPTION

If extra strength is required, a center support leg can be assembled onto the EZYRAK system. The center support leg option is available seperately to further increase the strength of the EZYRAK system. The support leg attaches at the center of the **EZYRAK** channel, reducing the span from 1000mm to 500mm, to further enhance its structural integrity and stability. By introducing this midpoint support, the load-bearing capacity of the product is significantly increased, ensuring it can withstand greater wind pressures and forces.
**Refer to load tables inserted in document.**

Tests undertaken at
JAMES COOK UNIVERSITY
AUSTRALIA

CYCLONE TESTING STATION

**EZYRAK** insulation spacer system has been tested at James Cook University cyclonic testing station.

# PERFORMANCE REPORT

## FOR BUILDING ARCHITECTS & SPECIFIERS

## PRODUCT DETAILS

The EZYRAK system is a rolled hi-tensile steel channel produced from 1.2mm G450 galvanised steel, supported on legs at either end. The legs are attached to the channel using three self-drilling fasteners. The length of the system is 1000mm. The racks are assembled by inserting pressed lugs on one rack, into slots of the preceding one, to create a continuous beam suitable for attaching any roof or wall system above. Racks are simply screwed through each leg with two fasteners to the purlin.

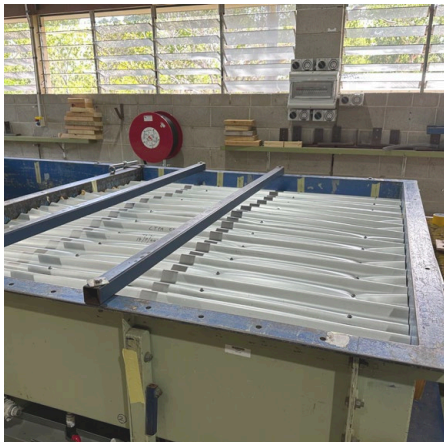
The 1000mm EZYRAK is connected to the top of the roof purlin or wall girts using two x #12 fasteners per leg. Additionally, the EZYRAK center leg option incorporates a centre leg reducing the screw spacing to 500mm. The data for 1.5mm purlins and above is adequate for all purlin applications thicker than 1.5mm.

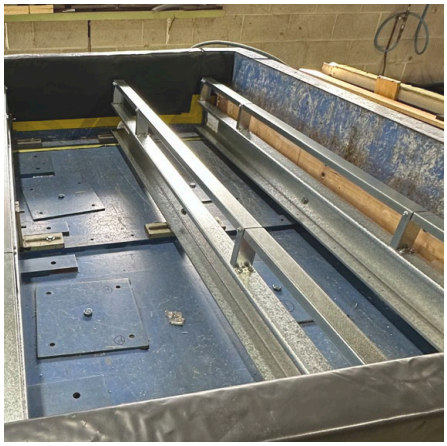
The roof and wall cladding performance should be based on a minimum purlin thickness of 1.2mm to match the thickness of the EZYRAK system.

## PRODUCT TESTING

Testing undertaken at JCU involved attaching metal roof & wall sheeting of known performance to the top of the EZYRAK system so that the performance of the EZYRAK could be determined. Tests were conducted in accordance with AS 4040.2 for both serviceability and ultimate limit state strength.

In all the tests, the EZYRAK was attached to 1.5mm thick purlins using the #12 fasteners as recommended.





Photos of EZYRAK cyclonic testing at the James Cook University Cyclonic Testing Station.

# LOAD TABLE

## FOR BUILDING ARCHITECTS & SPECIFIERS

The following table presents the performance of EZYRAK for both non-cyclonic and cyclonic areas for both wind load (in kPa) and purlin load (in kN/m). EZYRAK is supported by G450 grade steel purlins.

### EZYRAK PERFORMANCE – kPa AT ROOF OR WALL SPANS SHOWN

| LOCATION | NON-CYCLONIC | | | | CYCLONIC | |
|---|---|---|---|---|---|---|
| SUPPORT PURLIN THICKNESS (mm) | 1.2 | | 1.5+ | | 1.5+ | |
| EZYRAK SIZE (mm) | 500 | 1000 | 500 | 1000 | 500 | 1000 |
| ROOF / WALL SPAN (mm) | | | | | | |
| 600 | 6.53 | 3.27 | 13.80 | 5.20 | 8.67 | 4.33 |
| 900 | 4.36 | 2.18 | 9.20 | 3.47 | 5.78 | 2.89 |
| 1200 | 3.27 | 1.63 | 6.90 | 2.60 | 4.33 | 2.17 |
| 1500 | 2.61 | 1.31 | 5.52 | 2.08 | 3.47 | 1.73 |
| 1800 | 2.18 | 1.09 | 4.60 | 1.73 | 2.89 | 1.44 |
| 2100 | 1.87 | 0.93 | 3.94 | 1.49 | | |
| 2400 | 1.63 | 0.82 | 3.45 | 1.30 | | |
| **PURLIN LOAD (kN/m)** | **3.92** | **1.96** | **8.28** | **3.12** | **5.20** | **2.60** |

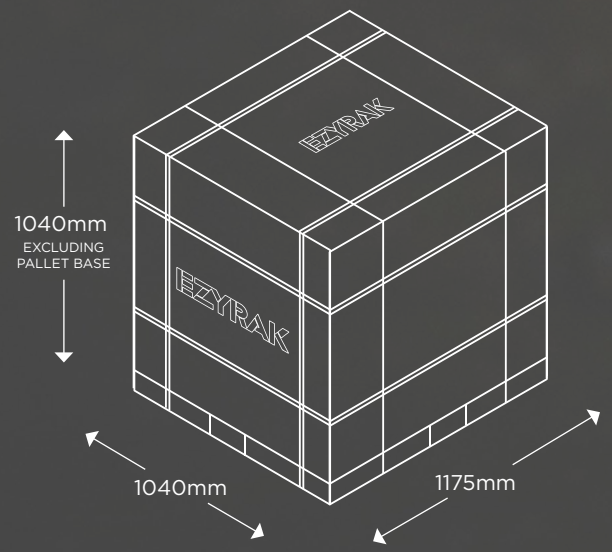
For serviceability, 1000mm EZYRAK is limited to 2.35kPa (a purlin load of 1.4kN/m), and the version with addition legs at 500mm centres is limited to 4.7kPa (a purlin load of 2.8kN/m).

# TECHNICAL SPECIFICATIONS

Available in 3 heights (80mm, 120mm, 150mm)
**EZYRAK** is built to suit various brands of roofing blankets.

| PRODUCT DESCRIPTION | SPACER HEIGHTS (MM) | PIECES PER BUNDLE | LINEAL METRES PER BUNDLE | PACK WEIGHT (KG) | PRODUCT CODE |
|---|---|---|---|---|---|
| **EZYRAK 80** | 80 | 12 | 12m | 15kg | CPEZY80 |
| **EZYRAK 120** | 120 | 12 | 12m | 15kg | CPEZY120 |
| **EZYRAK 150** | 150 | 12 | 12m | 15kg | CPEZY150 |
| **EZYRAK 80 - Cyclonic** | 80 | 12 | 12m | - | CPEZY80C |
| **EZYRAK 120 - Cyclonic** | 120 | 12 | 12m | - | CPEZY120C |
| **EZYRAK 150 - Cyclonic** | 150 | 12 | 12m | - | CPEZY150C |
| **EZYRAK 80 - Starter Leg** | 80 | 100 | - | - | CPEZY80S |
| **EZYRAK 120 - Starter Leg** | 120 | 100 | - | - | CPEZY120S |
| **EZYRAK 150 - Starter Leg** | 150 | 100 | - | - | CPEZY150S |
| **EZYRAK 80 - Midpoint Leg** | 80 | 100 | - | - | CPEZY80M |
| **EZYRAK 120 - Midpoint Leg** | 120 | 100 | - | - | CPEZY120M |
| **EZYRAK 150 - Midpoint Leg** | 150 | 100 | - | - | CPEZY150M |

# PACKING INFORMATION




## 1x EZYRAK PALLET CONFIGURATION

12x EZYRAK PER BUNDLE
5x BUNDLES PER LAYER
8x LAYERS PER PALLET

TOTAL EZYRAK PER PALLET - **480**
TOTAL WEIGHT PER PALLET - **638kg**

The method of installation used must be safe and in accordance with relevant safe work practices, Australian Codes and Standards. EZYRAK is to be fixed to purlins of C150 or larger. Both the EZYRAK starter leg, and the EZYRAK must be centred to the purlin centreline. Please ensure all safety assessments are carried out relevant to the project. Please ensure all WHS (Work Health and Safety) requirements have been met for working at heights prior to commencing installation of EZYRAK.