Defender™… independently certified safety

When you need all the safety and ease of access a guardrail provides without the visual impact on your building's aesthetics, choose Defender fold-down guardrails. They can be powder-coated to match your colour scheme and simply disappear from view altogether when laid flat.

The ideal partner for walkways, Defender guardrails – both conventional and fold-down – provide support for workers, prevent falls and avoid damage to the roof.

Activating Defender guardrails takes seconds. Simply raise them from their horizontal resting position and let them slide into place with a positive click. To make them disappear again, just lift and lower.

Defender access and safety equipment is designed by engineers, tested in our specialised ***NATA™-accredited*** facility and installed by factory-trained installers.

Defender guardrails fully comply with the ***National Construction Code*** (formerly the BCA), ***AS 1657***, ***OHS legislation*** and ***state regulations***.

Quick delivery, minimal disruption

For rapid delivery, Defender guardrails are stocked in our warehouse in kit form to suit all standard roof and platform profiles. No welding or grinding is needed on-site so your Defender guardrail can be installed with minimal disruption.

CONTACT US TODAY FOR MORE INFORMATION

Ensuring a safe work environment requires full compliance to ***Australian Standards*** and ***OHS legislation***. ***WHS laws*** require that the control means are selected using a risk-based approach following the hierarchy of controls.

Risk Assessment Tool

Plot the likelihood and the severity on the matrix to yield a rating, applying the hierarchy of controls:

	Likelihood			
Severity	A – Very likely	B – Likely	C – Unlikely	D – Very unlikely
1 – Catastrophic	High (1A)	High (1B)	High (1C)	Medium (1D)
2 – Major	High (2A)	High (2B)	Medium (2C)	Medium (2D)
3 – Moderate	High (3A)	Medium (3B)	Medium (3C)	Low (3D)
4 – Minor	Medium (4A)	Medium (4B)	Low (4C)	Low (4D)

The hierarchy of control

Level 1: Eliminate the risk of fall (e.g. work on a platform with guardrailing)
Level 2: Use of passive fall prevention devices (e.g. install guardrailing)
Level 3: Use of work positioning systems (e.g. install anchors and/or static lines)
Level 4: Use of fall injury prevention systems (e.g. compliment level 3 with rescue procedures)
Level 5: Use of ladders or administrative controls (e.g. induction, training and procedures)

AS 1657 Approved

AS 1657 is the Australian Standard for the design, construction and installation of guardrails, fixed platforms, walkways, stairways and ladders. This standard underpins Defender's performance.

ISO 9001 Quality

ISO 9001 is the world's most established quality framework, currently being used by over 750,000 organisations in 161 countries. This standard assures Defender's quality.

CodeMark™ – National Construction Code Approved

The CodeMark scheme recognises Defender's compliance with the National Construction Code (formerly the BCA).

Proudly Australian Made

Engineered and fabricated in its own ISO 9001 quality-assured factory, Defender guardrails are certified Australian-made.

Get it done right, first time, for less. Defender equipment and installation is extraordinarily cost-effective. Why? Because smart design shouldn't cost extra.

CALL US TODAY ON 1300 013 794 TO ARRANGE A VISIT FROM A CERTIFIED DEFENDER™ CONSULTANT

Other Specifications Guides in the DEFENDER series:

Access Hatches
Cooling Tower Platforms
Landings & Platforms
Roof Anchors
Rung Ladders
Staircases
Static Lines & Rail Systems
Step Type Ladders
Walkways
Internal & Suspended Walkways

DEFENDER™
Independently certified safety

To order, receive a quote, or for more information contact us today at:

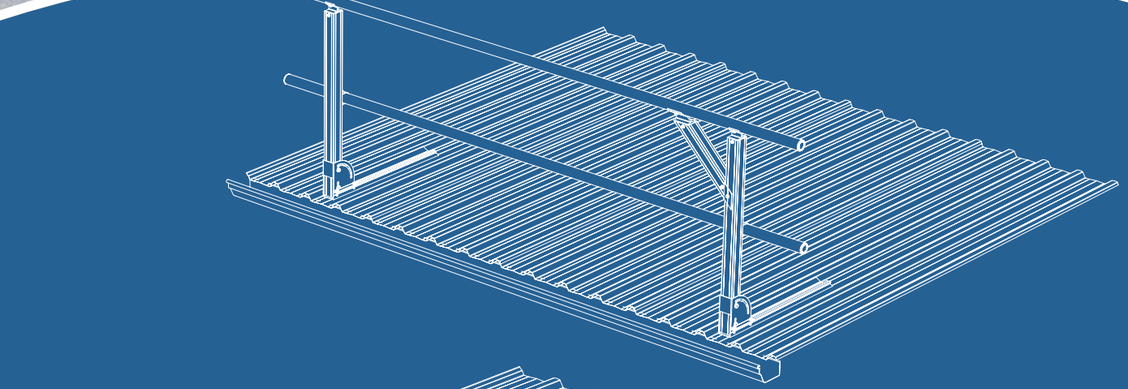
enquiries@workplacedefender.com.au
or call **1300 013 794**

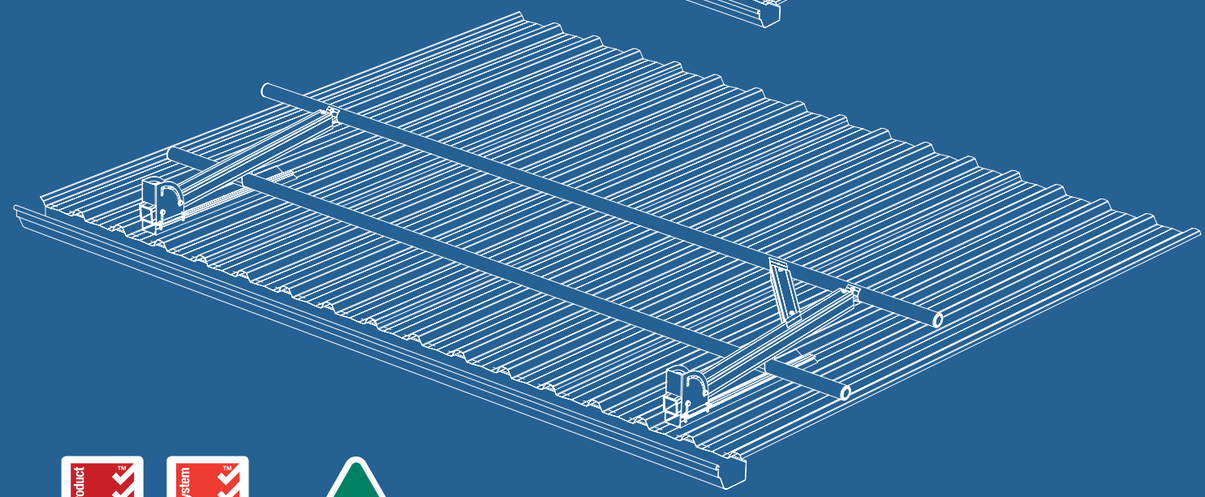
www.workplacedefender.com.au

Fold-Down Guardrail

SPECIFICATIONS GUIDE

DEFENDER™
Independently certified safety





AS 1657 Approved SMK40193
Quality ISO 9001 QMS43335
AUSTRALIAN MADE

www.workplacedefender.com.au

Defender™ fold-down guardrail

This specification concerns the construction of fold-down guardrail for permanent perimeter protection to meet Australian Standards and regulatory requirements.

Manufacture and installation specifications:

- Guardrail shall comply with the appendices of Australian Standard AS 1657 for testing of guardrailing (posts and railing).
- Install a 100mm kick board (or toe-board) if the area below is trafficable.
- The top rail has a vertical height not less than 900mm or more than 1100mm above the working surface. The maximum distance between the top and centre rails is 450mm and a maximum of 560mm from the lowest rail to the standing level.
- System design controls fall hazards at all locations to satisfy WHS laws.
- Post shall be installed at correct intervals to sustain loads. The maximum distance between vertical posts shall be two metres.
- Rails shall be spaced correctly to prevent people falling between them.
- Lateral brace is installed at every individual guardrail section.
- All penetrations shall be sealed with silicone above and below the base supports for watertight installation (as indicated in Detail A).
- Fixings shall be installed to ensure structural integrity with provision for redundancy. All steel fixing must be galvanized rather than zinc-coated.

Independent certification

- Independently certified to Australian Standard AS 1657 by *SAI Global™* and/or equivalent JAS-ANZ accredited certification body.

Certified Product
AS 1657 Approved
SMK40193

Independently Audited

- Manufactured by an independently audited ISO 9001 accredited facility delivering consistent product with full traceability.

Certified System
Quality ISO 9001
QMS43335

- Certified Australian-made

AUSTRALIAN MADE

- Installed equipment independently certified to the National Construction Code (formerly the BCA) for *CodeMark™* compliance or equivalent standard by *SAI Global™* or an equivalent JAS-ANZ accredited certification body.

CODEMARK Australia CM7004S

Installation

- Height safety installers demonstrate competency through training delivered by a registered training organisation.
- Independently accredited installation contractor to install the guardrails.

Safe installation and fabrication

Certified System
Health & Safety AS/NZS 4801

- System design controls fall hazards at all locations to satisfy WHS laws.
- Installation performed by organization independently certified to AS/NZS 4801 Standard for Health and Safety Management Systems.
- Licensed to the requirements of state building regulations.

Documentation and labelling

- Provides an installation certificate stating designer, fabricator, installer and certifier with each installation.
- Comprehensive handover documentation allows the system to be properly managed by the workplace controller.
- Provides all of the user information, layouts and compliance labelling.
- Guardrailing labelled to ensure traceability and identification of the system (as shown below).

DEFENDER™
FOLD-DOWN GUARDRAIL
www.workplacedefender.com.au
Job No.
FDG-0800
Installed by Workplace DEFENDER™ Independently Certified Safety
Certified by
Certified Product AS 1657 SMK40193 · CODEMARK™ SAIG-CM20080 · AUSTRALIAN MADE

Environmental accreditation

- Manufacture and construction to be conducted by an organisation independently certified to satisfy the ISO 14001 Environmental Management System Standard, recognising the management of primary environmental issues.

Certified System
Environment ISO 14001
EMS41358

Traceability

- All guardrails marked to provide full traceability to material batches.

Design

- System layout and design to be completed by an RTO-trained designer.

Design Certification

- Design certificate issued, guaranteeing the system meets the requirements of the Code of Practice (Safe Design of Structures 2012).

Figure 1. Roof-top applications.

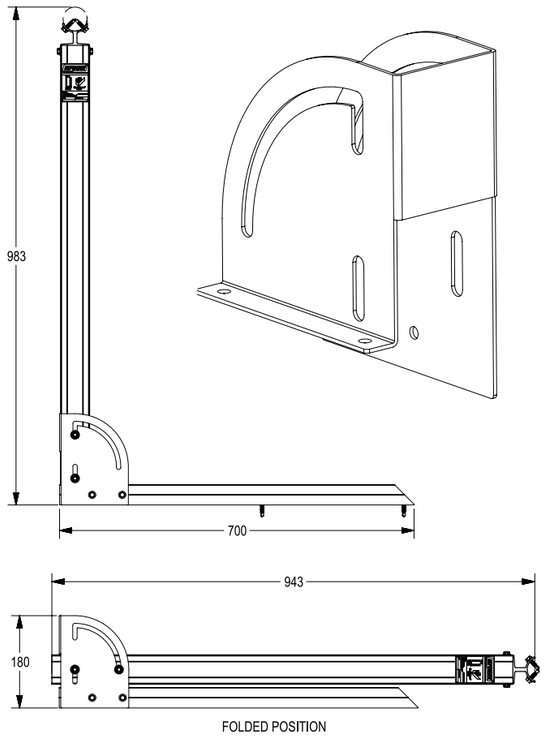


Figure 2.

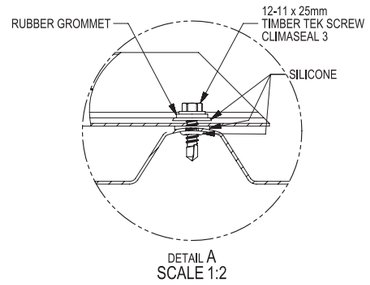
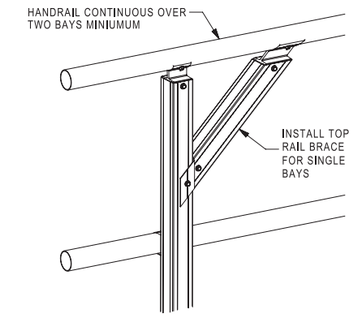


Figure 3.



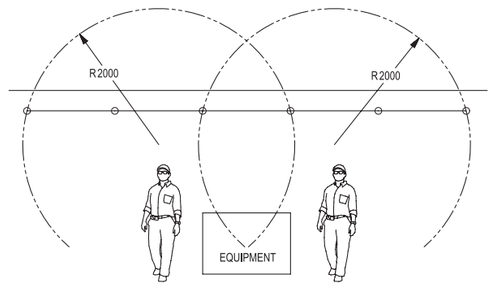
Product Code	Product Description
352.1	Defender™ Fold-Down Guardrail 3m
352.2	Defender™ Fold-Down Guardrail 5.8m
352.1P	Defender™ Fold-Down Guardrail 3m - Powder Coated
352.2P	Defender™ Fold-Down Guardrail 5.8m - Powder Coated

See Dulux Powder Coatings Colour Selector for colour options.

Positioning of guardrailing

1. Guardrailing is to be installed wherever a person stands within 2m of a fall hazard to gain access to areas requiring routine maintenance every 12 months or less. This includes but is not limited to evaporative and split type air conditioning, refrigeration equipment, extraction for cooking areas, satellite dishes, telecommunications equipment, fans, fire extraction and gutters.
2. On inclines of 0 - 6 degrees, guardrail is to be installed where the equipment is located within 2 metres of a fall hazard and is to protect a person within a 2m radius (see figure 4).
3. A fall hazard is regarded as any fall over a height of 450mm.
4. Where the incline exceeds 6 degrees, guardrailing is to be provided irrespective of the distance to the edge.

Figure 4.



Recommended designer, manufacturer, installer and certifier:

Workplace DEFENDER™ Independently Certified Safety

DEFENDER™

DRAWN:	NGB	06/03/14
CHECKED:	CS	08/10/15
APPROVED:	CS	08/10/15

DO NOT SCALE

TOLERANCES U.N.O.
FABRICATION 0-1000 ±1.0 >1000 ±2.0
MACHINING ±0.2
MACHINE SURFACES
HOLE POSITION ⌖ Ø0.5 M
ALL DIMENSIONS IN mm

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TITLE. DEFENDER™ – FOLD-DOWN GUARDRAIL

DWG. No. SM-007

SIZE A3

SHEET 1 OF 1 SCALE: NTS