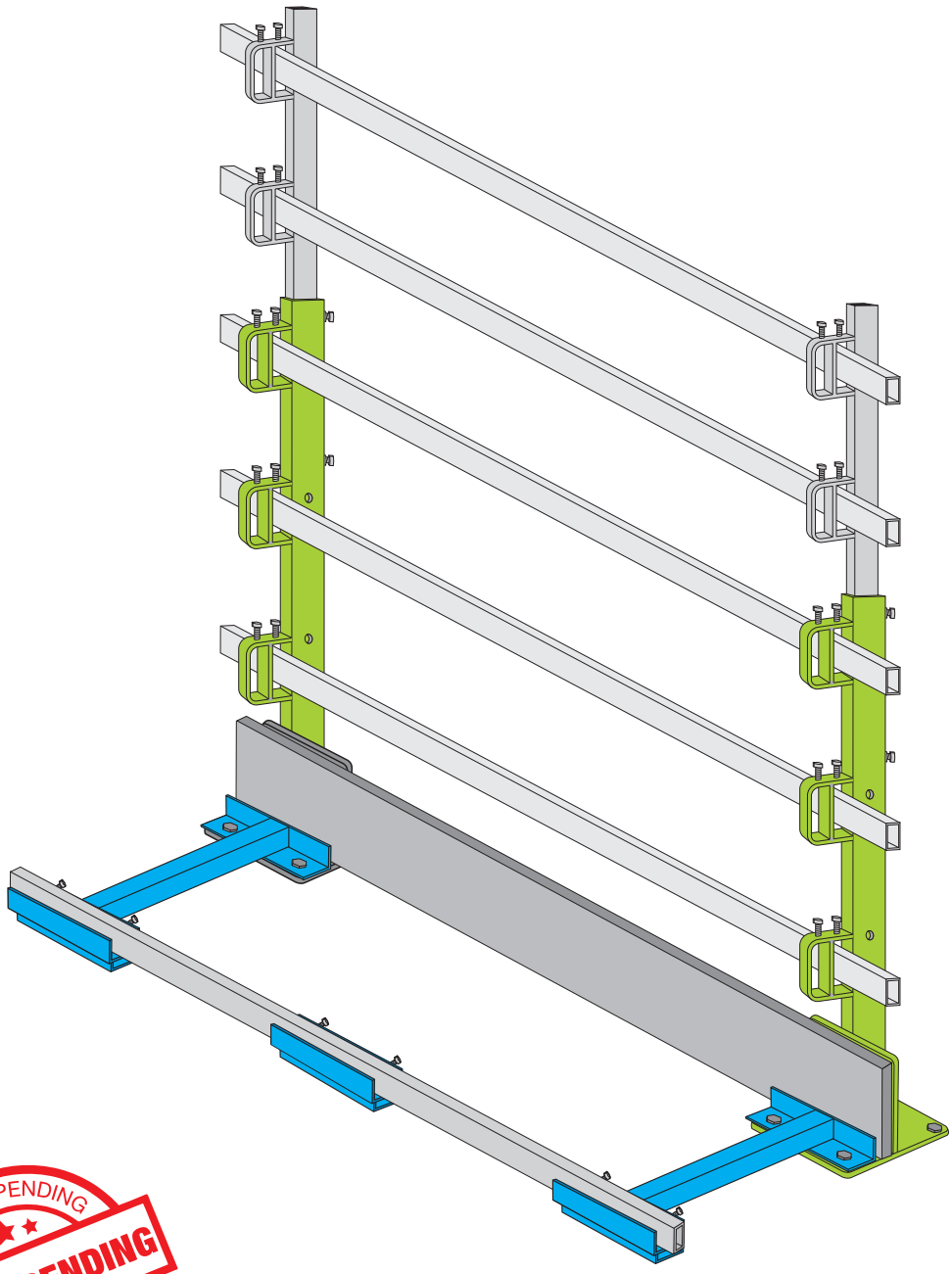
Aldeck

Revised July 2025

BUMPER STOP SYSTEM
INSTALLATION GUIDE



PATENT - PENDING
PATENT-PENDING
PATENT - PENDING

1 Jutland Way, Epping VIC 3076
Tel: (03) 9465 1122 *Fax: (03) 9465 1126*
Email: aldeck@aldeck.com.au *www.aldeck.com.au*

Aldeck

Aldeck | Handrail Systems

Introduction

The Victorian occupational health and safety act 2004 requires for all people and organizations to ensure a safe and healthy work environment. The Occupational Health and safety prevention of falls compliance code that was updated in Dec 2019, provides practical guidance to all duty holders relating to fall hazards associated with construction work and requires all duty holders to identify all risks that involve the possibility of someone falling more than 2 metres and eliminate all such hazards ,so far as is reasonably practical.

It is also noted in the code that a fall from almost any height including falls from below 2m can result in serious injury or death. It is possible that a number of factors can combine to create a dangerous situation making the hazard identification and risk assessment process essential for work at any height.

An employer's primary duty of care is to eliminate the risk of injury to an employee. The best way of achieving this is before work commences, identifying potential risks and applying risk control measures as set out in the hierarchy of control matrix of the prevention of falls compliance code.

The use of perimeter guardrail is in the second highest control measure available, along with safety mesh and elevated work platforms. Only the possibility of carrying out work on the ground rates higher in the hierarchy than using a perimeter guardrail system. The Aldeck handrail system can be used pre, during or post construction to minimize the risk of people falling from height. The Aldeck handrail system is fully tested and complies with AS 1657-1992 and AS/NZS 4994.1:2009

- The Aldeck handrail system should be erected and dismantled in accordance with legislation under the OH&S act. A thorough risk assessment should be conducted and a safe work procedure applied prior to any work taking place.

- The handrail system should only be installed, modified or dismantled by a component person, who has read and comprehended the installation guide relevant to the Aldeck hand rail system that they intend to install or dismantle.

- Posts to be installed at a maximum of 3 metres apart
  Handrail heights are dictated by the Australian standard and are dependent on the roof pitch
  Roof pitches from the horizontal
  - 0 to 10 degrees handrail need to be not less than 900mm high
  - 10 to 35 degrees, the top rail shall be located at an effective height of not less than 900mm Above the point where a person could stand inside and adjacent to the edge protection on the sloping roof. This shall be not less than 300mm from the back of the fascia or outer edge of the truss or rafter where there is no fascia.
  - Where mid rails are used, the nominal clear distance between rails shall not exceed 450mm. The nominal clear distance between a mid-rail and a toe board or bottom rail shall not exceed 275mm.
  - Rails intersecting at corners of edge protection shall be securely connected to each other or to a post. The connection shall be one rail immediately above the other.
  - In any section of edge protection, the rails shall be nominally parallel.

Introduction cont.

- Where the slope of the roof exceeds 35 degrees, the roof according to the code of practice (prevention of falls 2019) is an inappropriate surface to stand on. Perimeter guard rails and catchment platforms are inappropriate measures to protect workers on a steeply sloping roof. In these circumstances, roof workers need a system to prevent sliding and to prevent falls from the perimeter ,comprising one or more of the following
    - Elevated work platform
    - A work positioning system ,such as a travel restraint or industrial rope system
    - A scaffold platform ,located at the roof edge
    - A roof ladder

In additional to our telescopic handrail system that can extend our handrail post up to 2.4m high and our enclosure system that can full enclose the building perimeter with netting, preventing debris from falling to the ground we at Aldeck would now like to introduce you to our Welcome to our bumper stop system.

This system incorporated with our telescopic handrail post is an advanced safety system engineered to prevent mobile construction access equipment (scissor lifts etc) from unnecessarily hitting the perimeter handrail system and potentially falling over the edge of buildings during the construction process.

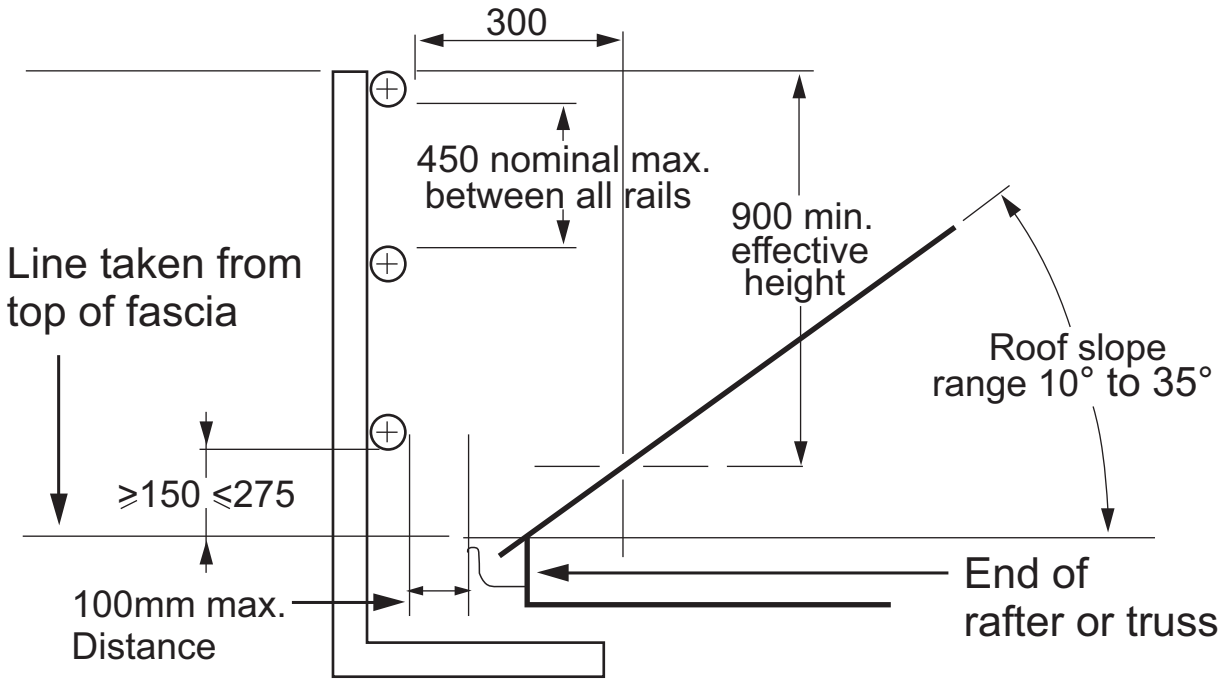
The unique design holds a consistent perimeter bump stop rail which alerts plant and equipment operators that they are near the perimeter guardrail system and helps prevent plant from coming into contact with the guardrail system.

Key features of the system include:

- The robust and engineered system sits approximately 30mm off the floor to help with dewatering and provides an approximate 80mm of overall height.
- The bump stop system is designed to attach to our telescopic base post through the same holes eliminating the need for excess holes through the slab.
- The system uses only two brackets and the same rail as used in the handrail system, making it very quick to install and user friendly.
- A significant step forward for height safety in the construction industry.

Aldeck

Aldeck | ***FIGURE 1 EFFECTIVE HEIGHT OF A GUARDRAIL***



NOTE: Infill and toeboards are not shown for clarity.

DIMENSIONS IN MILLIMETRES

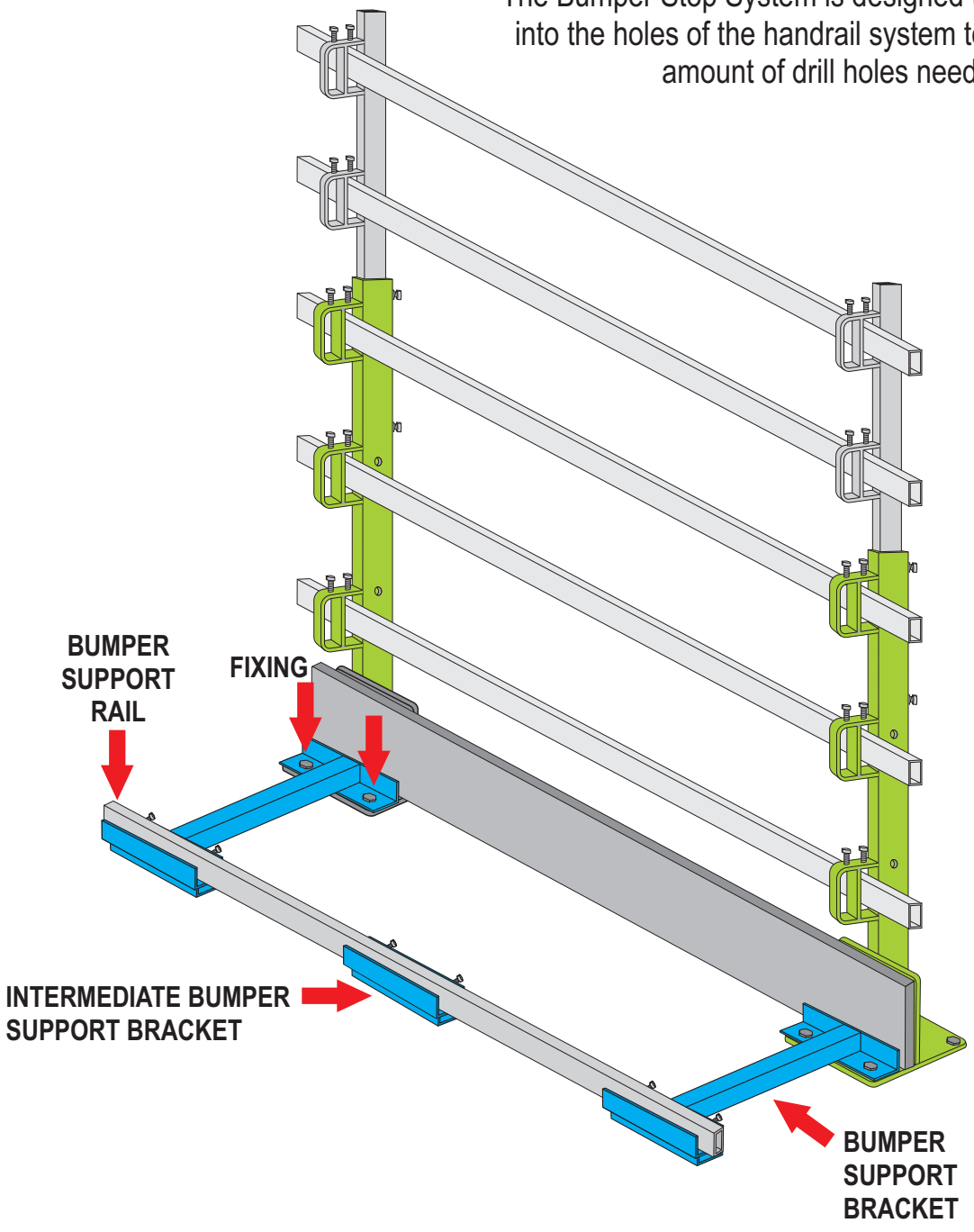
IMPORTANT

It is important that the structure to which the temporary edge protection is to be attached can support the forces that may be applied when the edge protection restrains a person from falling from the edge.

Bumper Stop System

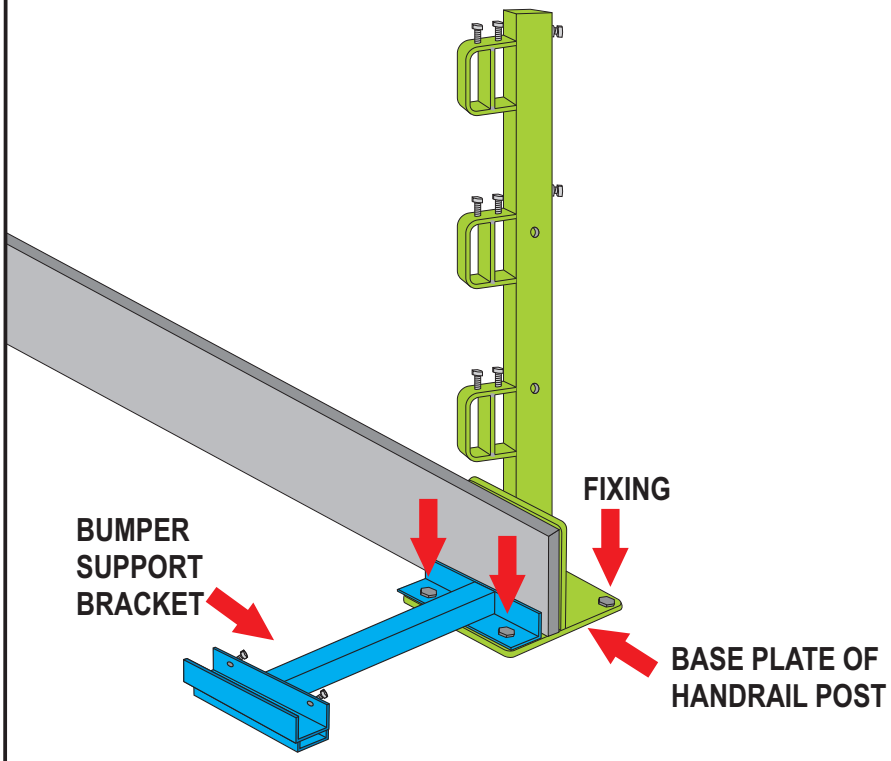
The Bumper Stop System can be installed to prevent Construction Plant and equipment from hitting the handrail system and potentially falling from the perimeter of a structure.

The Bumper Stop System is designed to align and fix into the holes of the handrail system to minimize the amount of drill holes needed in the slab.



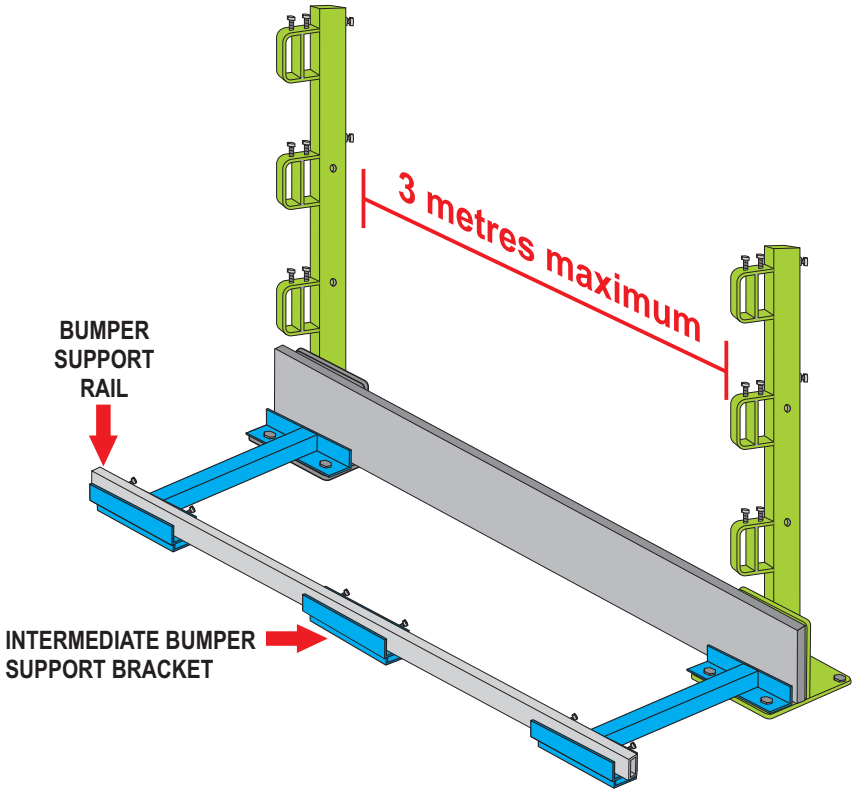
Bumper Stop System

Aldeck



STEP 1

Drill holes in the concrete to align with the base plate of the post. Using screw bolts affix the handrail post with the bumper stop bracket to concrete slab.



STEP 2

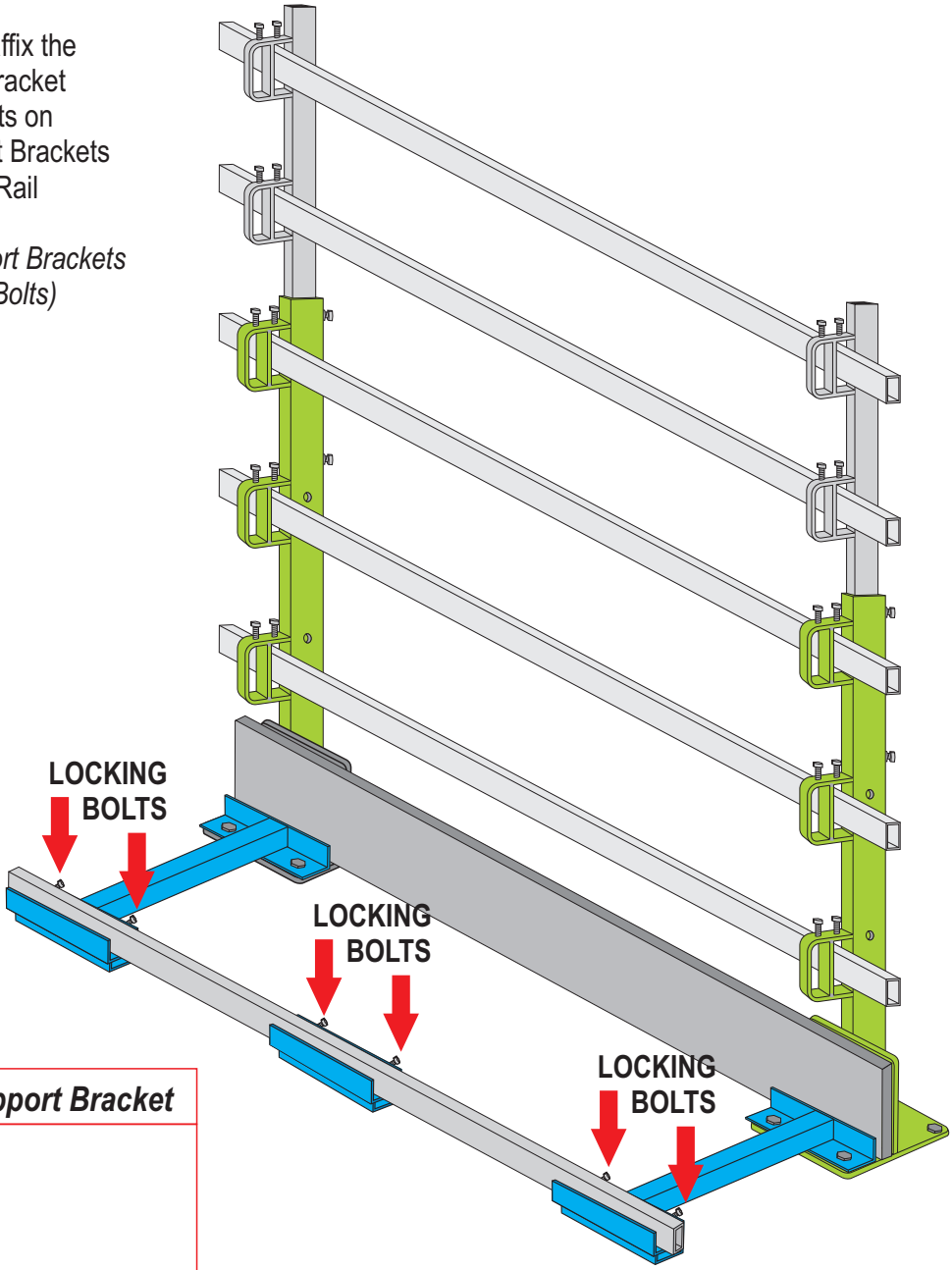
Position the Bumper Support Rail into the Bumper Support Brackets then place intermediate Bumper Support brackets on the Bumper Support Rail, in between the affixed Handrail posts and Bumper Support brackets.

When installing or dismantling, this work must be in accordance with state legislation under the OH&S act.

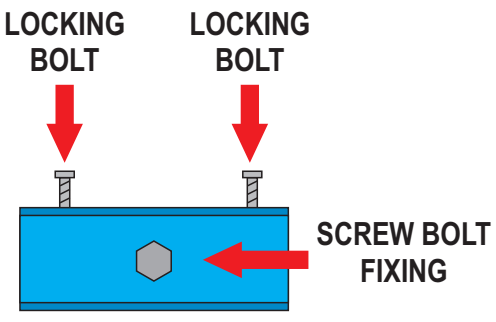
Bumper Stop System

STEP 3

With the use of screw bolts affix the intermediate Bumper Stop Bracket to the floor. Tighten Lock Bolts on all Bumper Stop and Support Brackets to hold the Bumper Support Rail in place.
(Intermediate Bumper Support Brackets only require M8 x 60 Screw Bolts)



Intermediate Bumper Support Bracket



When installing or dismantling, this work must be in accordance with state legislation under the OH&S act.