

MARS

Mobility Access Ramp System

Technical Data Sheet



AAA METAL SUPPLIERS
Stainless Steel Specialists

The “Mobility Access Ramp System”, is a kit of stainless steel fittings and tube profiles, that combine to create an AS 1428.1 compliant post, handrail and kerb-rail for access ramps.

The entire system is modular in nature and is able to adapt to differences in compliant ramp angle and route / path shape.

When installed in accordance with the manufacturer’s recommendations and relevant standards, the completed “MARS” installation will be fully compliant with the requirements of Australian Standard AS1428.1 - Design for Access and Mobility.

SYSTEM PROPERTIES

Posts and handrails	Ø50.8mm x 1.6mm Circular Hollow Section
Kerb-rail	100mm x 20mm x 1.2mm Rectangular Hollow Section
Fitting and tube material	316 Grade Stainless Steel
Finish	320 Grit Satin Finish
Connection method	Stainless Steel Fasteners (Supplied with Kit)
Welding requirements	NONE

NO WELDING REQUIRED



FEATURES & BENEFITS

Compliant	Australian Standard AS1428.1 - Design for Access and Mobility National Construction Code (formerly Building Code of Australia)
Durable & Attractive	All components are made from Satin Finish polished Grade 316 Stainless Steel, designed to last the life of the building, with standard recommended stainless-steel maintenance. Suitable for harsh and coastal environments
Modular Kit Form	Modular system that is adaptable to variable, compliant ramp angles and flat landings. Stainless tubes can all be supplied pre-cut in the factory to required lengths, to suit customers’ projects. All fittings, tubes and installation components are supplied in an all-inclusive kit form.
Easy to Install	The system can be installed by non-trade qualified persons, with basic tools and handy-man skills. No welding is required for the installation, meaning no “Hot Work Permit” and harsh Acid for weld cleaning , nor risk of “Arc Flash” on construction sites.

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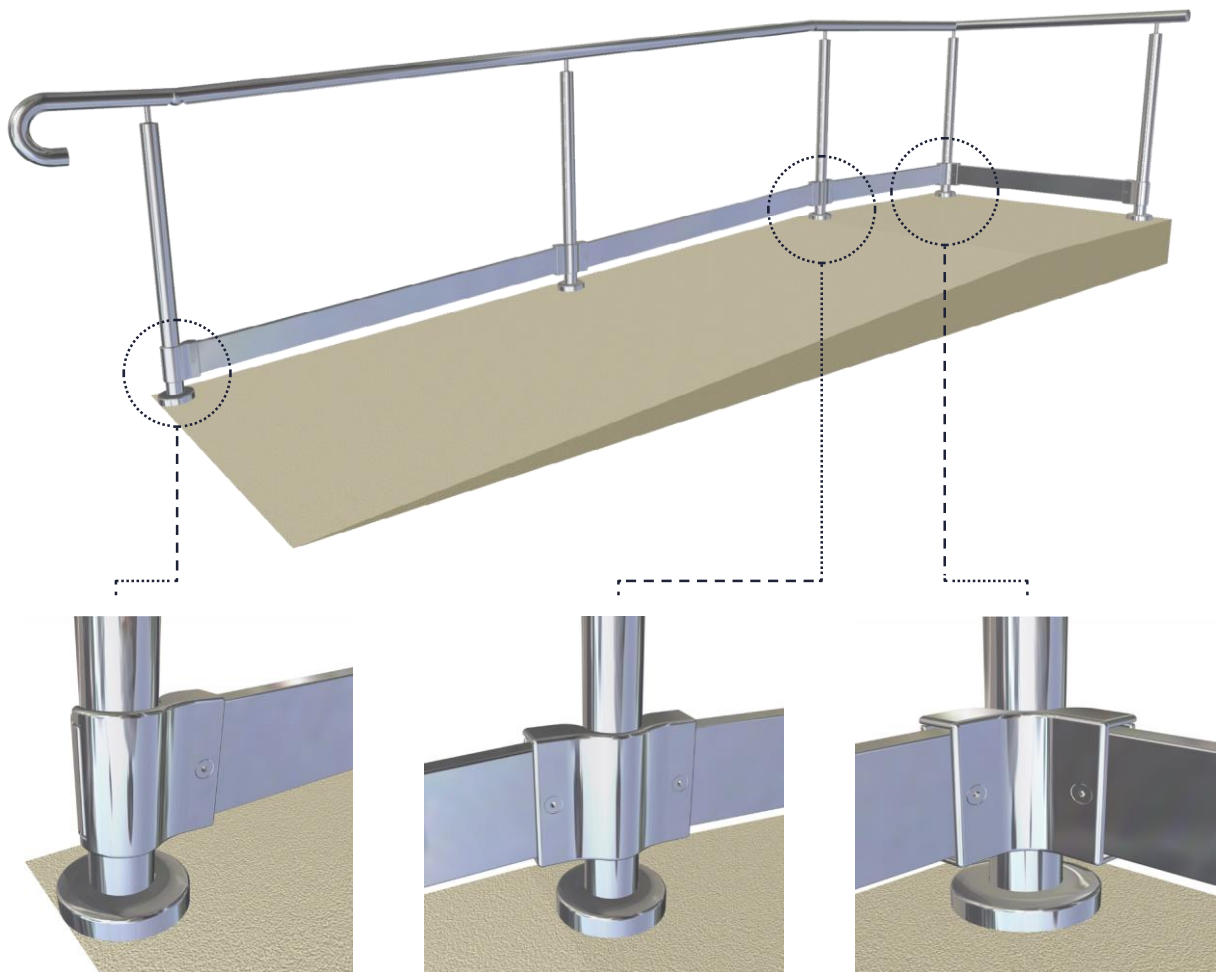


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ACCESS RAMP COMPLIANCE UNDER AUSTRALIAN STANDARD AS1428.1

Key considerations:

- Ramp maximum gradient 1:14 or 4.1°
- Ramp sections - maximum length 9m (landings required between ramp sections)
- Landings - minimum length 1200mm
- Ramp width - minimum width 1000mm
- Handrail height - top of handrail between 865mm - 1000mm
- Handrails and kerb rails required on both sides of ramp
- Handrail ends to have returned end with tactile indicators installed
- Kerb rail height - top of kerb rail to be set at 150mm above ramp level



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KEY COMPONENTS

Handrail Tube

TU-R-50-16SF

316 Grade Stainless Steel handrail tube, Ø50.8mm x 1.6mm wall thickness. Used for both posts and handrails in the MARS system. Can be supplied in 6m lengths for cutting on site, or cut to the millimetre in our factory if required.



Kerb Rail Clamp - End

KRC-50R-100-20-END

Used in conjunction with 100 x 20 SHS kerb rails, to allow installation of an AS1428.1 compliant kerb rail onto standard Ø50.8mm posts. The Kerb Rail Clamp - End is designed to allow kerb rails to be terminated horizontally or on an angle to end posts. Can be simply installed onto the post with a hex key and requires no welding at all. For commercial areas the clamping plate can be attached directly to the post tube via wafer screws for additional support.



Kerb Rail Clamp - Intermediate

KRC-50R-100-20-INT

Used in conjunction with 100 x 20 SHS kerb rails, to allow installation of an AS1428.1 compliant kerb rail onto standard Ø50.8mm posts. The Kerb Rail Clamp - Intermediate is designed to allow kerb rails to be attached to either side of intermediate posts, either horizontally or on an angle to the post. Can be simply installed onto the post with a hex key and requires no welding at all. For commercial areas, the clamping plate can be attached directly to the post tube via wafer screws for additional support.



Kerb Rail Clamp - Corner

KRC-50R-100-20-CNR

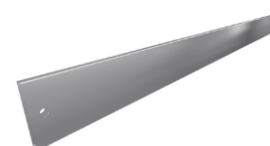
Used in conjunction with 100 x 20 SHS kerb rails, to allow installation of an AS1428.1 compliant kerb rail onto standard Ø50.8mm posts. The Kerb Rail Clamp - Corner is designed to allow kerb rails to be attached at 90° to corner posts, either horizontally or on an angle to the post. Can be simply installed onto the post with a hex key and requires no welding at all. For commercial areas, the clamping plate can be attached directly to the post tube via wafer screws for additional support.



Kerb Rail - RHS 100x20

KR-RHS-100-20-SF

Kerb Rail, RHS 100x20x1.2, 1420mm long, with pre-drilled holes to suit KRC Clamping System. The system is designed for post spacing of exactly 1500mm on centre - shorter spacings are possible by cutting and drilling one end of the RHS section at the required length. The kerb rail fits into and is secured by tightening the hex socket screw and nuts on the kerb rail clamps.



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KEY COMPONENTS

Long Base Plate

LBP-50R-16SF

Base plate suitable for level surfaces, such as near beginning or end of ramps or on landings. Plate Ø 100mm, height under post 6mm. 3 x CSK mounting holes set at Ø70mm / 120°, suitable for 14g Bugle Batten screws or M8 fasteners.



Adjustable Base Plate

ABP-50R-16SF

Base plate suitable for inclined surfaces, such on ramps. Plate Ø 90mm, thickness 6mm, height under post 70mm. 3 x CSK mounting holes set at Ø69mm / 120°, suitable for 14g Bugle Batten screws or M8 fasteners.



Cover Plate

CP-50R-SF

Cover plate suitable for fitting over Long Base Plates or Adjustable Base Plates, outside Ø105mm. Provides a neat finish to hide base plate fasteners or core hole grout for grouted posts.



Post

P-END-B-50R- NOH-16SF

Suitable for all post locations used in the MARS kit. Different length required for LBP and ABP bases. For 900mm to top of handrail height, posts lengths required are:
LBP-50R-16SF - 794mm
ABP-50R-16SF - 730mm



Fixed Saddle

FS-50RT-16SF

Inserts into the top of the post and provides fixed perpendicular support for Ø50.8mm round handrail. Fastens to post via Ø3.2mm pop rivet. Fasten the handrail to the saddle via wafer screws.



Adjustable Saddle

AS-50RT-16SF

Inserts into the top of the post and provides adjustable support for Ø50.8mm round handrail. Angle can be set as required and locked via the incorporated socket head fastener. Fastens to post via Ø3.2mm pop rivet. Fasten the handrail to the saddle via wafer screws.



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KEY COMPONENTS

Fixed Corner Saddle

FCS-50RT-16SF

Fixed Corner Saddle to suit a $\varnothing 50.8$ mm round handrail. 19mm diameter support post, used to attach handrails to a corner post in combination with a CMFJ-50R-16SF. Inserts into the top of the post and provides fixed perpendicular support. Fastens to post via $\varnothing 3.2$ mm pop rivet. Fastens the CMFJ to the saddle via wafer screws.



Corner Mitre Flush Joiner

CMFJ-50R-16SF

Corner mitre 90° elbow joiner to suit a $\varnothing 50.8$ mm round handrail. Fastens to handrails via $\varnothing 3.2$ mm pop rivet.



Adjustable Elbow Joiner

AEJBT-50R-16SF

Adjustable elbow joiner to suit a $\varnothing 50.8$ mm round handrail, can be adjusted from 85° to 220°. Fastens to handrails via $\varnothing 3.2$ mm pop rivet. Used at the top and bottom of ramps to change the handrail angle from level to inclined.



Extended Elbow Fitting

EEF-50R-16SF

180° extended end fitting, $\varnothing 50.8$ mm x 1.6mm tube, used at the ends of mobility access handrails. Tube is open both ends, can be closed by the addition of an EC-50R-16SF. Length = 400mm Width = 210mm.



End Cap

EC-50R-16SF

Cast end caps feature a raised end and knurled internal grip that is easily installed into $\varnothing 50.8$ mm x 1.6mm tube.



Handrail Tactile Indicator

HTI-SF

Assists visually impaired persons to give physical indicator near the ends of handrails. Simply drill a 5mm hole and drive in with a soft mallet - no welding or fastening required.

