

# TR20 Tuffrail Hot-dip Galvanized Industrial Handrail Specifications

## Top & Midrail For level, rake or stair applications



### Key features

- > Modular flexibility
- > No-weld assembly
- > Flat pack delivery
- > Reduced corrosion
- > Colour options
- > Available ex-stock
- > BIM & CAD Support

### Applications suited to

- > Service platforms and mezzanines
  - > Warehouses and loading bays
  - > Airports and shopping centres
  - > Retaining walls and culverts
  - > Roof service areas and fall edges
  - > Pedestrian pathways and footbridges
  - > Carparks and community centres
- Refer to applicable NZ Standards and Building Codes

### Specification Summary

Supply and install the proprietary TR20 handrail system to substrate according to Moddex specifications, or by a Moddex accredited installer.

### Technical Data

#### Material

<b>Stanchions, rails &amp; balustrades</b>	Steel/grade C250 & 350
<b>Clamp fittings</b>	Malleable Cast iron
<b>Clamp locking screws</b>	Stainless Steel (304)

#### Protective coating

<b>Stanchions, rails and balustrades</b>	G390 Hot-dip Galvanized (min 390g/m <sup>2</sup> )
<b>Clamp fittings</b>	Hot dip Galvanized with patented protective coating on threads
<b>Optional</b>	Powder coating and paint specs*

\*The standard process for Powder Coated and Painted handrail products is as follows: black steel is used for fabrication and then hot-dipped galvanized. Product is then de-gassed and pre-treated before powder coating is applied on top of galvanizing.

### Dimensions

Variable depending on building/application/code

#### Stanchions

<b>Diameter</b>	48.3mm OD 41.9mm ID
<b>Nominal Thickness</b>	3.2 – 4.0 (loading dependent)

#### Rails

<b>Diameter</b>	48.3mm OD 41.9mm ID
<b>Nominal Thickness</b>	3.2mm

#### Clamp fittings

<b>Thickness</b>	5.0mm (approx)
<b>Locking screws</b>	M12 x 1.75 x 11 mm - DEXX® Drive

### Weight

Variable depending on building/application/code

<b>Stanchion with clamps</b>	7.2 to 8.0kg
<b>Rail @ 6.0m</b>	21.6kg

### Fixings

Stanchion attachment to

<b>Concrete</b>	M12 galvanized mechanical concrete anchor or chemical anchors
<b>Structural steel</b>	M16 galvanized high tensile bolt set
<b>Timber</b>	Stainless or galv coach screws

\*Other Fixing options are available on request

### Compliance

Moddex TR20 handrails are designed and manufactured in accordance with New Zealand Standard NZS 1657 and the New Zealand Building Code. Galvanized to AS/NZS 4680:2006 (where applicable).

### Testing

Testing and performance based on requirement of Standard AS/NZS 1170.1 Clause 3.6 Table 3.3. Static load testing has been performed and independent testing has been carried out to confirm the suitability of the Moddex system in maritime conditions.

### Warranty

5 years from date of purchase subject to correct installation, use and maintenance in accordance with manufacturer's specifications and recommendations, unless otherwise negotiated at the time of purchase.

### Inspection & Maintenance

Visual inspection for any damage or loose fixings must be done periodically and prior to use. No certified maintenance required. Basic wear and tear preventative maintenance is recommended, as per manufacturer's specifications and recommendations.

### Basis of Design

When designed as per the Moddex PS1

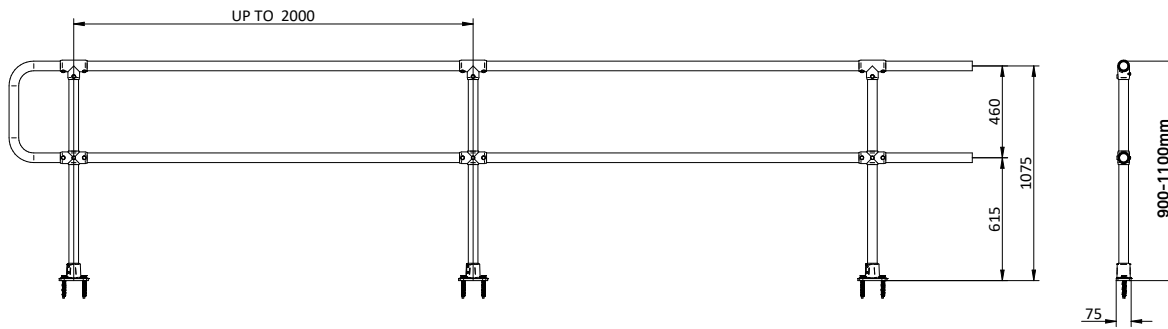
1. Design Life: 50 years minimum
2. Building Occupancy: B, E
3. Loadings: AS/NZS 1170.1:2002 - Table 3.3 AS 1657:2013 - CL6.1
4. Live Loadings: Line: 0.35kN/m Concentrated: 0.6 kN

### BPIR

BPIR, set new minimum requirements for the level of information required about building products supplied to the New Zealand market. Moddex is committed to meeting these requirements - download the latest information here:

<https://moddex.com/resources/downloads/#bpir-sheets>

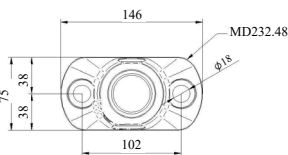
## Technical Information



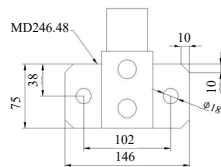
## Mount Dimensions

### FIXING TO CONCRETE

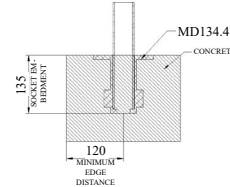
T2 - Top Mount (2 Fixings)



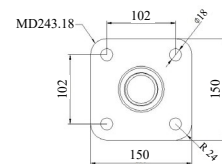
F2 - Face Mount (2 Fixings)



CD - Cored Mount

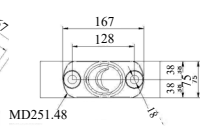
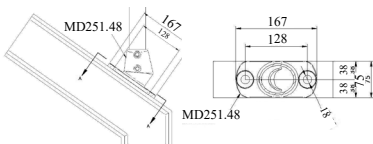


T4 - Top Mount (4 Fixings)

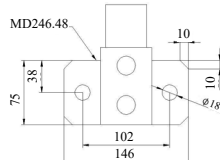


### FIXING TO STEEL

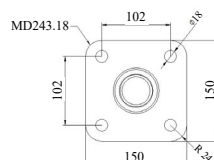
T2 - Top Mount (2 Fixings)



F2 - Face Mount (2 Fixings)

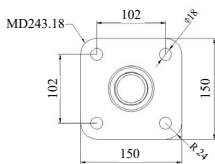


T4 - Top Mount (4 Fixings)

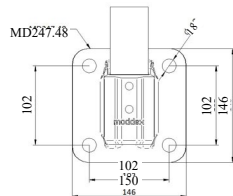


### FIXING TO TIMBER

T4 - Top Mount (4 Fixings)



F4 - Face Mount (4 Fixings)



## Standard References

New Zealand Standard NZS 1657:1992

3.2 Protection at sides, ends, openings and edges

4.5 Guardrailing

4.6 Handrailing

**Important Note:** Failure to supply and/or install proprietary product in accordance with above Standards and codes and the Moddex PS1, voids complete system certification and/or warranty.

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For information or technical support please contact us

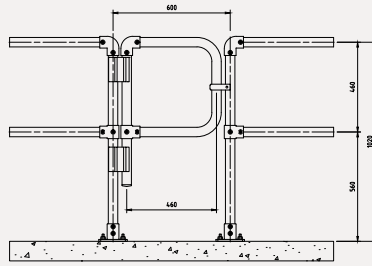
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T 0800 663 339 (NZ)

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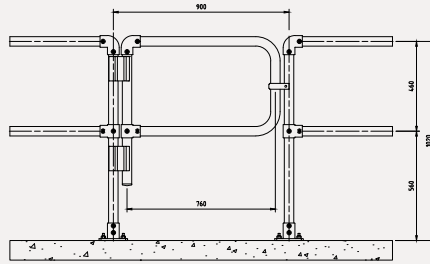
## Technical Drawing MD582.0600 – Self Closing Gate

<b>MD582.0600</b>	
<b>Post Spacing</b>	600mm
<b>Length</b>	460mm
<b>Height</b>	460mm



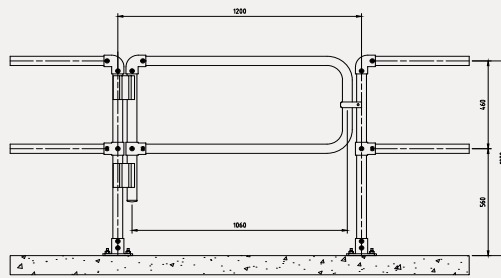
## Technical Drawing MD582.0900 – Self Closing Gate

<b>MD582.0900</b>	
<b>Post Spacing</b>	900mm
<b>Length</b>	760mm
<b>Height</b>	460mm



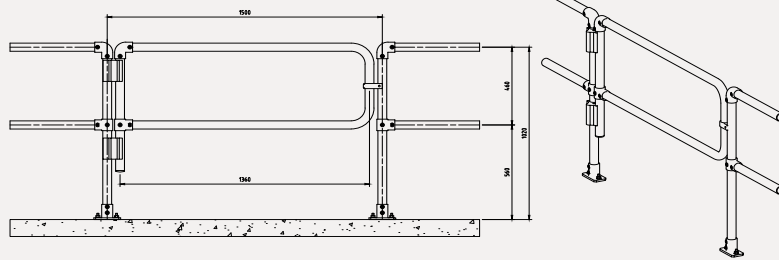
## Technical Drawing MD582.1200 – Self Closing Gate

<b>MD582.1200</b>	
<b>Post Spacing</b>	1200mm
<b>Length</b>	1060mm
<b>Height</b>	460mm



## Technical Drawing MD582.1500 – Self Closing Gate

<b>MD582.1500</b>	
<b>Post Spacing</b>	1500mm
<b>Length</b>	1360mm
<b>Height</b>	460mm



## Technical Drawing – 900mm Custom Gate with Toeboard

<b>MD582.0900 Custom</b>	
<b>Post Spacing</b>	900mm
<b>Length</b>	760mm
<b>Height</b>	1034mm

