Monkeytoe

Installation Compliance Guide







Contents

WALKWAYS	
Smartwalk Walkway	page 6
Skywalk Walkway	page 7
LADDERS	
Rung-type Ladders	page 9
Step-type Ladders	page 11
Step type Ladders	page II
ALUMINIUM STAIRS	
Accessible Stairs	page 12
Service Stairs	page 13
Common Stairs	page 15
Secondary Private Stairs	page 16
HANDRAILS	
Aluminium Handrails	page 18
BARRIERS	
3-rail Barrier	page 19
Aluminium Balustrades	page 20
ACCESS HATCHES	
Roof Access Hatches	page 21
COMPONENTS GUIDE	
Roof Clip	page 22
Standard connectors	page 22
Walkway Components	page 23
Sheet Metal	page 24
Handrail Components	page 25
Ladder Components	page 26
Condenser Mount Components	page 29
Duct Support Components	page 30
Extrusion Endcaps	page 31
Standard Hardware	page 31
Hidden Fix Bolts	page 31
Standard Fastener	page 32
DDOELLE CLUDE	
PROFILE GUIDE Extrusions	nago 74
LAU USIONS	page 34
OTHER INFORMATION	
Site Requirements	page 38
Producer Statements	page 39
Contacts	page 40
Monkeytoe Values	page 41



Compliance simply isn't optional with Monkeytoe solutions.



Walkways, stairs or ladders?

Knowing where, when and how they can be used is a key requirement to any successful build.

Use the diagram below as a quick reference guide for determining the compliance of your access type.

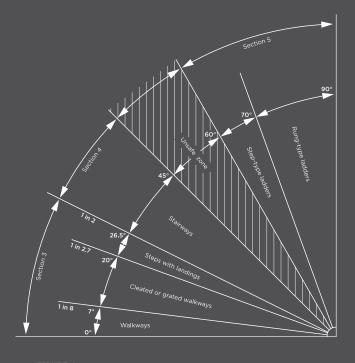


FIGURE 1.
ACCEPTABLE SLOPES FOR WALKWAYS,
STAIRWAYS, AND FIXED LADDERS.

WALKWAYS



Smartwalk Walkway



The Smartwalk Walkway system is a 2.5kPa rated high-tensile aluminium system incorporating the amplimesh deck. This is used either levelled or non-levelled with single or double-sided handrails on any commercial or industrial building/plant roof top as access routes to industrial plants, infill modules for riser shafts, bridge walkways, spanning bund edges, or access over skylights.

COMPLIANCE NOTES

PRODUCT CERTIFICATION

- · Minimum width of walkway must be 600mm. With double-sided handrail the minimum width must be 550mm between the handrails.
- · Walkway supports must have an average spacing of 2400mm with a maximum spacing of 3000mm
- · Walkway must be levelled for any cross-slope pitch exceeding 7deg.
- · Handrailing is required for any cross-slope pitch exceeding 11deg.
- · Walkway running with the slope of the roof between 10-20deg requires cleats.
- · Walkway running with the slope of the roof between 15-20deg requires handrail.
- · Maximum pitch for walkway is 20deg before stairs must be introduced.

Design in accordance with







B1 Building Code -Structure Durability



WALKWAYS



Skywalk Walkway

2

The Skywalk Walkway system is a 1.5kPa rated amplimesh deck fixed to aluminium longitudinal support beams. This is used either levelled or non-levelled with single or double-sided handrails on any commercial or industrial building/plant roof top as access routes to industrial plants, infill modules for riser shafts, bridge walkways, spanning bund edges, or access over skylights.

COMPLIANCE NOTES

PRODUCT CERTIFICATION

- Minimum width of walkway must be 600mm. With double-sided handrail the minimum width must be 550mm between the handrails.
- Walkway supports must have an average spacing of 2000mm with a maximum spacing of 2400mm.
- Walkway must be levelled for any cross-slope pitch exceeding 7deg.
- Handrailing is required for any cross-slope pitch exceeding 11deg.
- Walkway running with the slope of the roof between 10-20deg requires cleats.
- Walkway running with the slope of the roof between 15-20deg requires handrail.
- Maximum pitch for walkway is 20deg before stairs must be introduced.

Design in accordance with







B1 Building Code Structure Durability

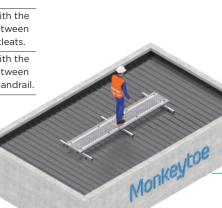
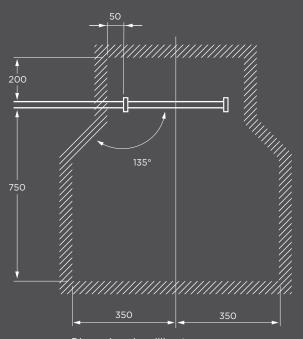




FIGURE 2. TYPICAL MINIMUM CLEARANCES FOR RUNG-TYPE LADDERS.



Dimensions in millimetres



LADDERS







Aluminium ladders with walk-off kits are utilised where permanent fixed access is required to the building roof, or other elevated areas, and mid/change-of-direction landings can also be added depending on the overall height required.

COMPLIANCE NOTES

- · Monkeytoe recommend a cage on ladders 3.5m and above as a quideline. however code does not strictly require it until 6m.
- · Monkeytoe recommends a mid/change-of-direction landing every 6m on caged ladders in compliance with AS 1657, however within the NZBC there is allowance to go to 9m without a mid/change-ofdirection landing.
- Cages/ladders must extend nothing less than 1000mm above the landing.

- · Rung-type ladders can be installed between 70-90dea, pitch.
- · Distance between ladder rungs must be between 250 - 300mm apart, and uniform throughout.
- see minimum clearances for rung-type ladders (Figure 2, pg. 10)
- Monkeytoe recommends ladder cages begin at a height of 2200-2500mm in accordance with AS 1657, for reasons of practicality and increased safety. NZBC recommends ladder cages begin at 2500mm.

PRODUCT CERTIFICATION

Design in accordance with relevant sections of



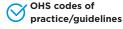


B1 Building Code -Structure Durability





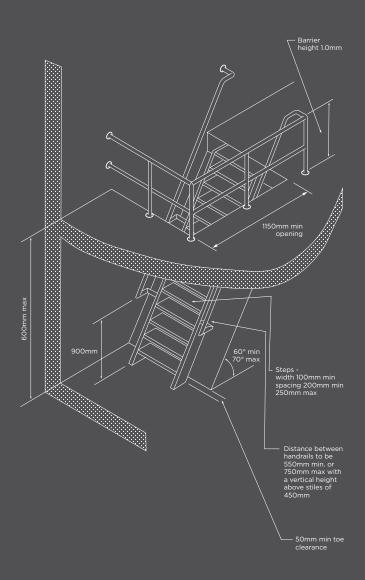




LADDERS



FIGURE 3.
ACCEPTABLE SLOPES FOR WALKWAYS.
STAIRWAYS. AND FIXED LADDERS.



LADDERS





Step-type Ladders

An aluminium step-type ladder provides access to a roof or elevated area and is typically used in cases whereby access space is scarce. These ladders can be between 60 - 70deg. in pitch and are often utilised in service rooms up to an access hatch.

COMPLIANCE NOTES

- Installed between 60-70deg.
- Cages are required 6m or above.
- Where the height of the step-type ladder exceeds
 6m, a change-of-direction or 1.5m landing will need to be introduced.

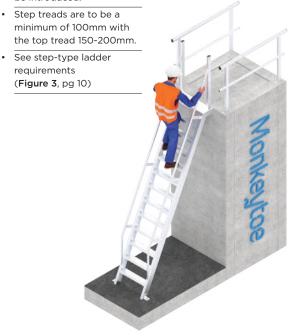
PRODUCT CERTIFICATION

Design in accordance with









ALUMINIUM STAIRS



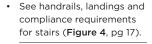
Accessible **Stairs**



An accessible stair is a stairway which has features for use by people with disabilities, and is required on buildings that the general public use, whether or not a lift is provided. Common examples are community centres, childcare facilities etc.

COMPLIANCE NOTES

- Max pitch 32deg.
- Must have double-sided handrails and width between handrails must be minimum 900mm. At the top and bottom of every flight there must be 300mm flat level area.
- Maximum tread must be 310mm with 180mm rise
- · Must have closed risers
- Must be rated to 4kPa
- · Landings minimum 900mm long, with max rise of 2.5m



PRODUCT CERTIFICATION

Design in accordance with



AS/NZ 1657



B1 Building Code -Structure Durability



OHS Codes of practice/guidlines



D1 Building Code -Access Routes



ALUMINIUM STAIRS

Service **Stairs**

A service stair is a stairway that is for infrequent use for the purpose of maintenance or movement of goods, and provides access to specific areas such as the roof, elevated areas or equipment rooms. These stairs are most commonly used in commercial or industrial buildings/plants and customised to suit the specific access required.

COMPLIANCE NOTES

PRODUCT CERTIFICATION

- No less than 600mm wide.
- Must be rated to 2.5kPa
- · Max pitch 47deg. In accordance with D1 Building Code - Access Routes
- · Landings equal to, or stairs, with max rise of 4m (18 risers per flight).

more than the width of the · See handrails, landings and

compliance requirements for stairs (Figure 4, pg 16). Design in accordance with



AS/NZ 1657



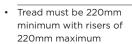
B1 Building Code -Structure Durability



OHS Codes of practice/guidlines



D1 Building Code -Access Routes







ALUMINIUM STAIRS







ALUMINIUM STAIRS



Common **Stairs**

A common stair is a stairway which is used by the public. A private common stair, is a stair used by a household unit, and a main private common stair is a private stairway intended to provide access between frequently used spaces. These stairs are most commonly used in apartment buildings, hospitality buildings, housing blocks etc.

COMPLIANCE NOTES

- Max pitch 37deg.
- · Width between handrails must be minimum 900mm.
- · Landings minimum 900mm long, with max rise of 2.5m (18 risers per flight)
- · Minimum single-sided handrail.
- · See handrails, landings and compliance requirements for stairs (Figure 4, pg 17)
- · Tread must be 280mm minimum with risers of 190mm maximum.

PRODUCT CERTIFICATION

Design in accordance with relevant sections of



✓ AS/NZ 1657



B1 Building Code -Structural Durability



OHS codes of practice/guidelines



D1 Building Code -Access Routes



ALUMINIUM STAIRS



Secondary **Private Stairs**



A secondary private stair is a private stairway other than a main or minor private stairway, intended to provide access to another floor containing only accommodation or amenities. These stairs are most commonly used in apartment buildings, hospitality buildings, housing blocks etc.

COMPLIANCE NOTES

Max pitch - 41deg.

- Landings minimum 900mm long, with max rise of 4m (18 risers per flight).
- · See handrails, landings and compliance requirements for stairs (Figure 4, pg 17).
- Tread must be 250mm minimum with risers of 200mm maximum.

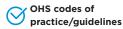
PRODUCT CERTIFICATION

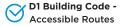
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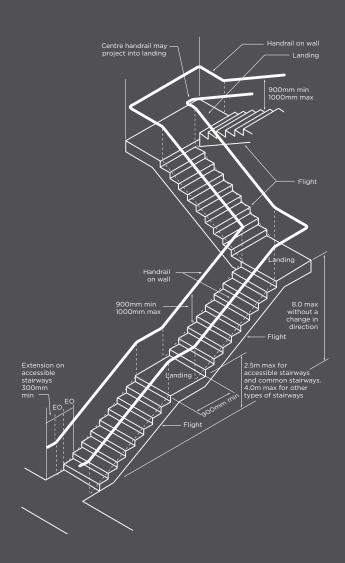


ALUMINIUM STAIRS



FIGURE 4.
HANDRAILS, LANDINGS AND
COMPLIANCE REQUIREMENTS
FOR STAIRS.

Guide





Guide





Aluminium Handrails



Handrailing can be utilised in a range of scenarios but primarily on walkways, stairs, platforms, the roof edge or any other situation where edge protection is required (mountable to any roofing profile, parapet or wall).

COMPLIANCE NOTES

Handrail must be between 900-1000mm, except when mounted to the top of a balustrade or when the stair flight becomes level to match 1100mm height of barrier/balustrade.

- Shape diagram must have minimum clearance from the handrail to any obstruction behind of 45-60mm
- Must have a diameter of 32-50mm.

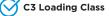
PRODUCT CERTIFICATION

Design in accordance with













BARRIERS



3-Rail Barrier

Guide

10

Handrailing can be utilised in a range of scenarios but primarily on walkways, stairs, platforms, the roof edge or any other situation where edge protection is required (mountable to any roofing profile, parapet or wall).

COMPLIANCE NOTES

PRODUCT CERTIFICATION

- Max spacing between rails
 450mm
- If full height the barrier must have three rails (including top rail).
 Bottom rail can be substituted for kick-plate.
- Barrier is required as edge protection anywhere a safe working environment is required where there is a fall of 1000mm or greater.
- Minimum loading in a horizontal direction is 600N.
- Minimum height for barrier on stairs is 900mm, and 1100mm on levels in accordance with F4.
- Non-certified personnel cannot enter hazardous zones without edge protection or fall arrest system.

Design in accordance with











BARRIERS



Aluminium Balustrades

11

Contemporary Balustrade is typically utilised on internal stairs such as house/building stairwells, general safety egress stairs such as fire exits, and as a front of house balustrade particularly for multi-story buildings e.g. retirement apartment villages, hospitality blocks etc.

COMPLIANCE NOTES

- For areas likely to be frequented by children under 6yrs
- 100mm object must not be able to pass between rails
- Must be positioned 900 -1000mm above the pitch line.

PRODUCT CERTIFICATION

Design in accordance with



NZS/AS 1675-1992



F4 Building Code -Safety From Falling



D1 Building Code -Accessible Routes









Roof Access Hatches

12

Roof Access Hatches are utilised as a sturdy, high-strength solution whereby access to the ceiling or roof is gained internally, often in apartment blocks and commercial buildings..

COMPLIANCE NOTES

 Where permanent ladder access is in place, it must comply with ladder minimum clearance requirements (see ladder diagram Figure 3 pg.10).
 This is primarily to provide head clearance when climbing through the hatch.

PRODUCT CERTIFICATION

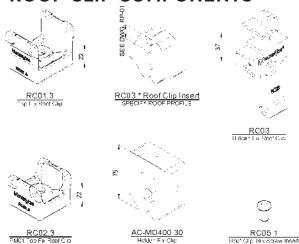
Design in accordance with relevant sections of

- B1 Building Code -Structure Durability
- E2 Building Code External Moisture
- OHS codes of practice/guidelines.



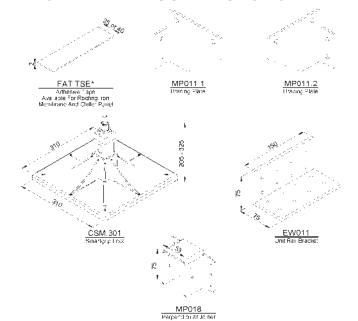


ROOF CLIP COMPONENTS



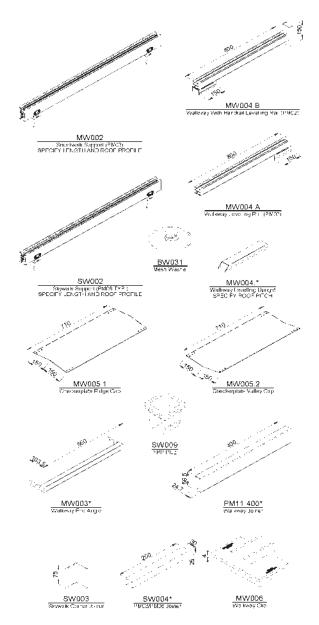
Components

STANDARD CONNECTORS



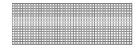


WALKWAY COMPONENTS





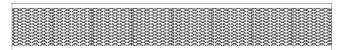
WALKWAY COMPONENTS



SW001.18 1800 x 615 x 15mm FRP Sheet OTHER LENGTHS AVAILABLE

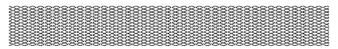


SW001.36 3600 x 615 x 15mm FRP Sheet OTHER LENGTHS AVAILABLE

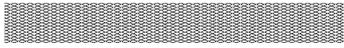


MW001.*

4800 x 710mm Aluminium Walkway
OTHER I FNGTHS AVAII ARI F

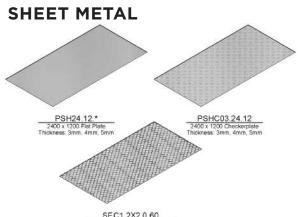


EW001.48 4800 x 600 x 13mm Walkway Mesh OTHER LENGTHS AVAILABLE



EW001.60 6000 x 600 x 13mm Walkway Mesh OTHER LENGTHS AVAILABLE

Components

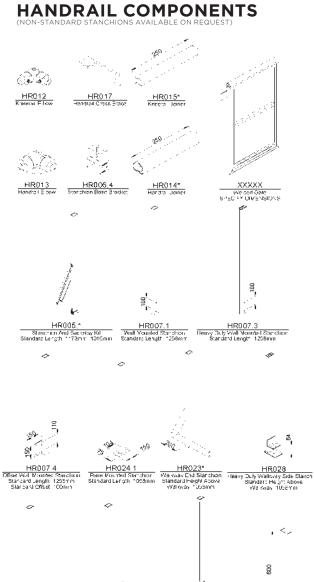




Components

HR029* Walkway Side Standhior Standard Height Above Walkway 1055mm

HR030* PM36 * Mean Standhion Standard Height Above Wesh 1058nm



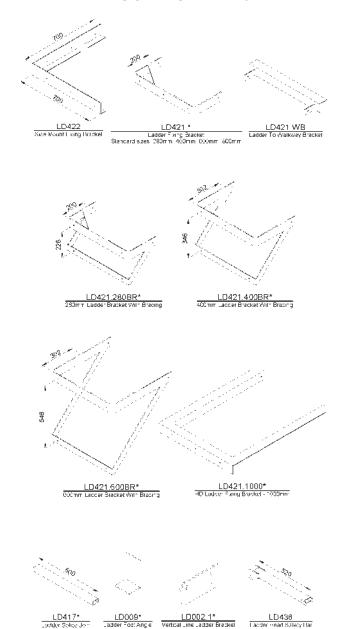
HR031* HR006_2

FM35 + PM37 + PM36 + Mesh Standtion Standard Height Access Mesh (10587):

Standard Height Access Mesh (10587):

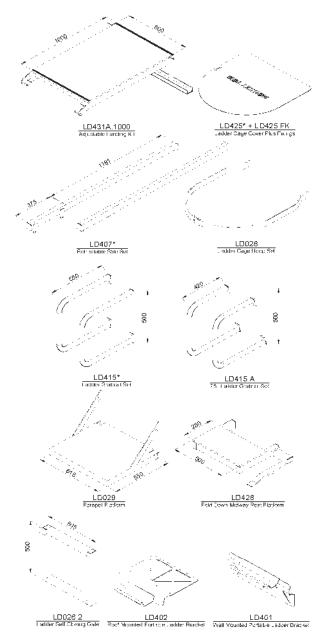


LADDER COMPONENTS



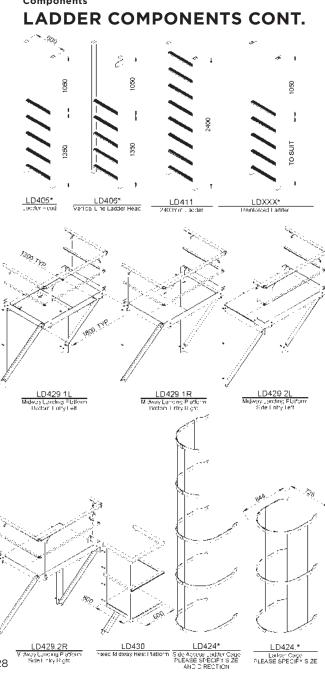


LADDER COMPONENTS CONT.





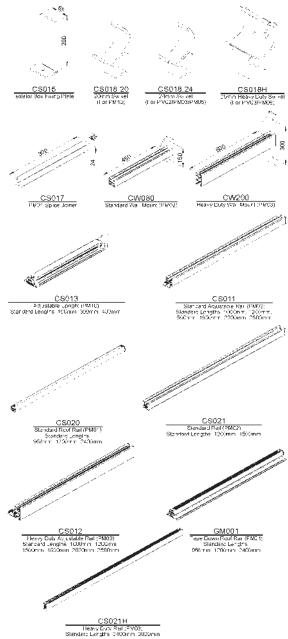
Components





Components

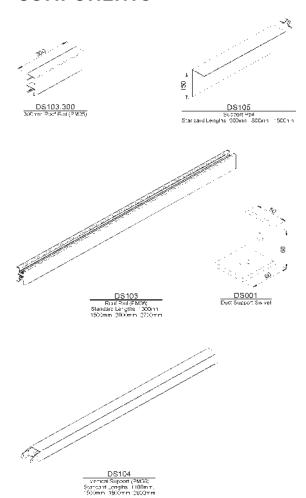
CONDENSER MOUNT COMPONENTS





Components

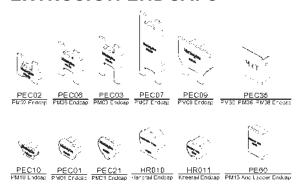
DUCT SUPPORT COMPONENTS





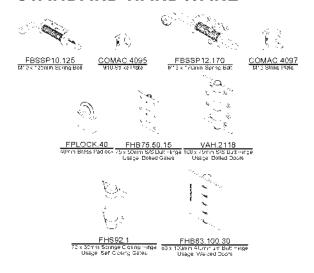
Components

EXTRUSION ENDCAPS



Components

STANDARD HARDWARE



Components

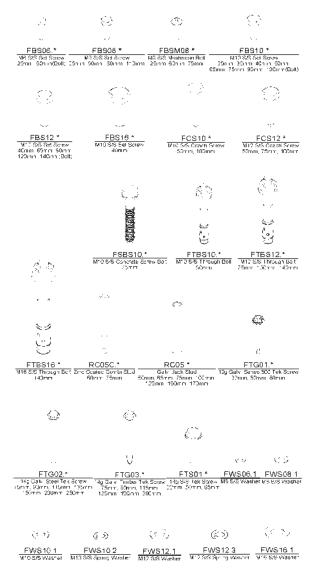
HIDDEN FIX BOLTS





Components

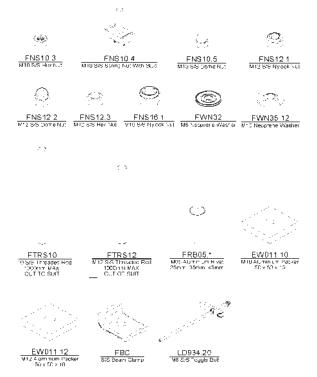
STANDARD FASTENERS





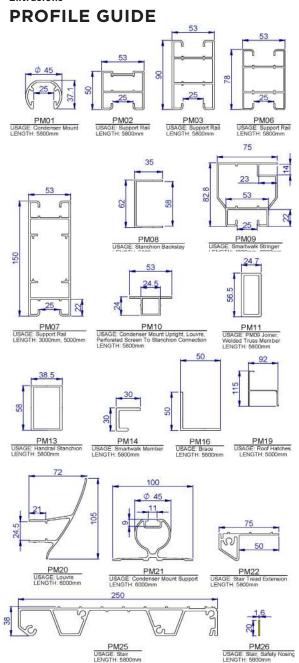
Guide

STANDARD FASTENERS CONT.





Extrusions





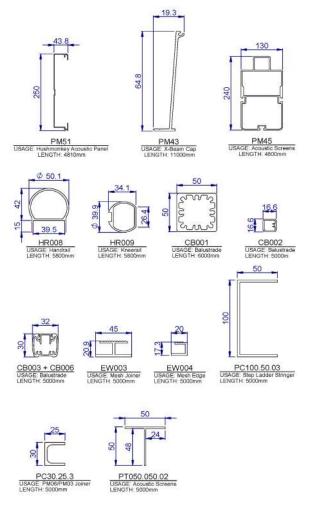
PM50.W6
USAGE: Support Column For X-Beams
LENGTH: 4000mm

Extrusions PROFILE GUIDE CONT. 38 110.9 50 22 PM28 PM29
USAGE: Heavy Duty Handrail Stanchion
LENGTH: 5000mm USAGE Safety Nosing LENGTH: 5800mm USAGE: Stepladder Tread LENGTH: 5000mm 100 53 100 53 53 35 50 25 23 8 82 PM35 USAGE: Truss Member, Tape Down Support Rail LENGTH: 6100mm PM36 USAGE: Tape Down Support Rail Truss Member, Mesh Support LENGTH: 6100mm PM34 USAGE: Screen Support/Heavy Duty Rail LENGTH: 5800mm 58.5 100 53.5 53 95 53.5 170 PM38 USAGE Truss Member, Joiner For MKT Extrusions I FNGTH: 6000mm **PM37** USAGE Truss Member, Joiner For MKT Extrusions LENGTH: 6000mm 165 PM39 USAGE: Heavy Duty Rail LENGTH: 4000mm, 6000mm 185.7 PM40 USAGE X-Beam Flange LENGTH: 11000mm 248 8 PM41 GE: X-Beam Web Section LENGTH: 11000mm 248



Extrusions

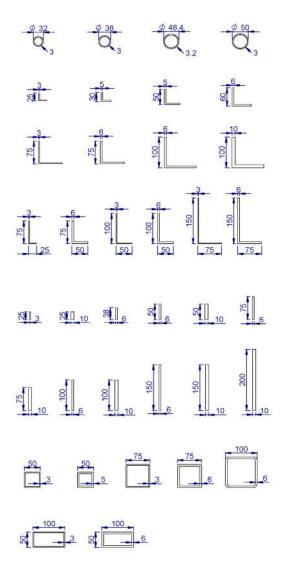
PROFILE GUIDE CONT.





Extrusions

PROFILE GUIDE CONT.



SITE REQUIREMENTS

- All incidents and near misses must be recorded and reported to the Project Manager (this can be done on the Responder app).
- Where an SSSP is in place, a Toolbox meeting must be held and recorded.
- . Where safety gear is provided, it must be worn.
- Photos must be taken prior, during and on completion of installation to record the condition of the work area
- All damage/rubbish or concerns caused by other trades must be reported prior to commencement, during and on completion of works.
- Quality assurance forms must be completed once the project has finished.



PRODUCER STATEMENTS

- PS1 Engineer sign-off to say that the structure being built is strong enough
- PS2 Engineer to double check the engineers work that completed the PS1 (peer review)
- PS3 Statement that guarantees completion and compliance
- PS4 An onsite inspection from an engineer that confirms the product has been installed as per the drawing

PLEASE NOTE.

All jobs shall be installed as per the provided drawings, and if for some reason this is not possible, verbal confirmation of the change in scope, MUST come from your Project Manager.





Contacts

Director	Tim Prestidge	027 220 7559
General Manager	Budd Prestidge	027 220 7560
Operations Manager	Brad Dombroski	027 373 7258
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Auckland Project Manager	Heinrich Pretorius	021 583 741
Southern Project Manager	Steve Williams	027 482 9799
Health & Safety Manager	Paul Olckers	021 0881 2029
Draughting Manager	Ben Halliday	027 900 2541
Workshop Foreman	Mason Laing	027 204 3988
Freight Manager	Damian Thomas	021 240 9185



Monkeytoe Values.

VISIONARY

- Measure your decisions against the long-term goal
- · Be versatile and receptive to other ideas
- Be constantly looking for new ideas

OWNERSHIP

- If it's your area of responsibility, own the challenge, own the project and deliver it to the required standard
- Own your mistakes and announce your victories
- Trust & empower other to be taking responsibility to believe, belong, and behave like an owner

INNOVATION

- Challenge the status quo if you can see a better way
- Always look for new opportunities to make 'everything better'
- Embrace challenges, identify solutions, overcome problems

COLLABORATIVE

- Communicate well be honest, open and fair
- Make the interests of the team and the customer your own
- · Treat others as you like to be treated

EXCELLENCE

- Foster excellence in yourself and embrace it in your colleagues
- Bring motivation and commitment to work every morning
- Have fun and keep a positive attitude







Monkeytoe