

# 03

## FORKLIFT SEPARATION



This section contains a wide range of options for controlling the movement and access of pedestrians into hazardous or sensitive areas. A particular focus is on forklift separation using products like Ball-fence, Channel Rail or our revolutionary new 'Q-Fence' panel system.

'Q-Fence' interacts with our Menni & Ball-fence products to produce truly innovative pedestrian management solutions. Alternatively, 'Q-Fence' stands alone as a stackable and free-standing crowd control barrier (see page 112).

You may also be interested in pages:



20  
MENNI



25  
SHOCK ABSORBING  
GUARD RAILS



81  
EXPANDING BARRIERS



106  
ZONE FENCING

## BALL-FENCE – Hand rail system

Ball-fence is a modular handrail system that includes stanchions in a range of configurations, a top (hand) rail and a centre (knee) rail. Design flexibility is a strength of the Ball-fence. Usually the Ball-fence components are assembled on site. If required they can be partially assembled in our factory and delivered to site in sections for simple fixing. (Charges apply).

**BEST  
VALUE**

### Value features:

- » Design flexibility.
- » Components are all hot dip galvanised.
- » Complies to AS1657.
- » Suitable for outdoor use.
- » Self closing gates available.

### Specifications:

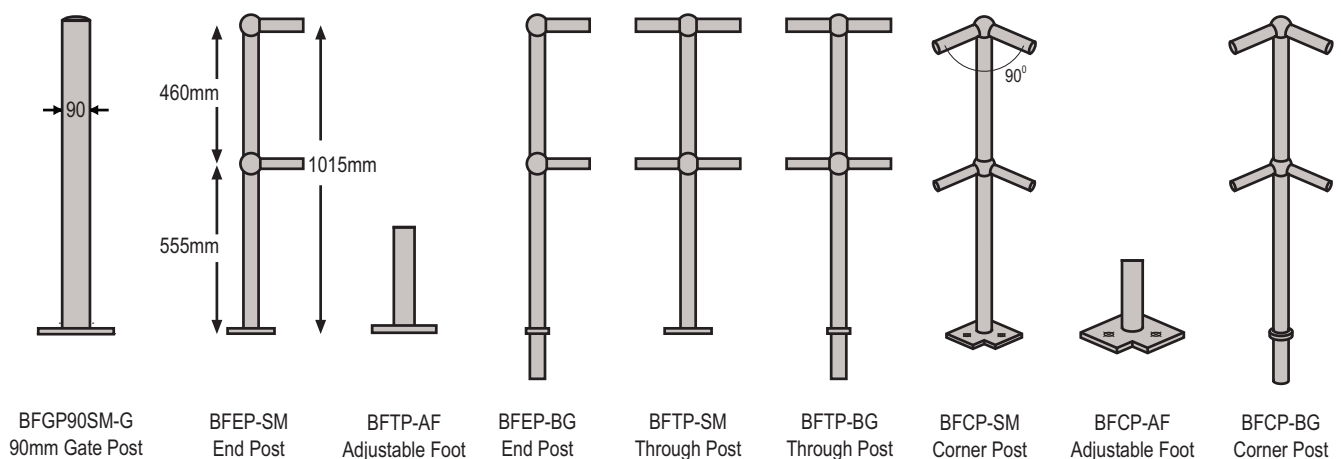
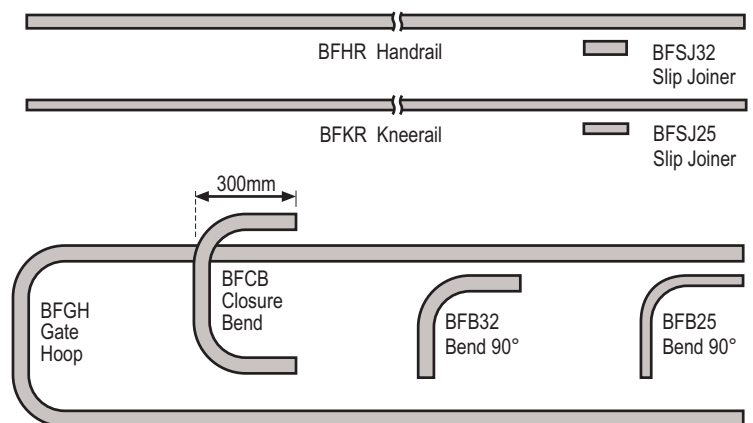
<b>Description:</b>	Tubular handrail system.
<b>Material:</b>	Post 48.3mm OD (40mm N.B) Handrail 42.4mm OD (32mm N.B) Kneerail 33.7mm OD (25mm N.B)
<b>Finish:</b>	Hot dip galvanised.
<b>Height:</b>	Ground to centre of handrail 1015mm. Ground to centre of kneerail 555mm.
<b>Spacing:</b>	Max post spacing 2 metres centre to centre.



See also Ball-fence Gates on page 33.

See also Ball-fence plus Menni on page 34.

PART No.	DESCRIPTION
BFHR	Hand rail 32 N.B. x 6 metres
BFKR	Knee rail 25 N.B. x 6 metres
BFEP-SM	End Post (Surface mount)
BFEP-BG	End Post (Cored)
BFTP-SM	Through Post (Surface mount)
BFTP-BG	Through Post (Cored)
BFCP-SM	Corner Post (Surface mount)
BFCP-BG	Corner Post (Cored)
BFGP90SM-G	Ball-fence Gate Post 90 x 1050mm – Galvanised
BFB32	Bend 90° x 32 N.B.
BFB25	Bend 90° x 25 N.B.
BFCB	Closure Bend
BFGH	Additional 1.5 metre gate hoop
BFSJ32	Slip Joint 32 N.B.
BFSJ25	Slip Joint 25 N.B.
BFTP-AF	Through post adjustable foot
BFCP-AF	Corner post adjustable foot
BFTP	Taper Pin



BFGP90SM-G  
90mm Gate Post

BFEP-SM  
End Post

BFTP-AF  
Adjustable Foot

BFEP-BG  
End Post

BFTP-SM  
Through Post

BFTP-BG  
Through Post

BFCP-SM  
Corner Post

BFCP-AF  
Adjustable Foot

BFCP-BG  
Corner Post

## BALL-FENCE GATES

A self closing gate system that can be supplied with new Ball-fence installations or retrofitted to existing Ball-fence sites.

Ball-fence Gates can be installed in minutes for left or right hand operation, opening inwards or outwards. With adjustable hoop length and return gas strut, it ensures total flexibility of use.

Hot dip galvanised or powder coated for indoor or outdoor use.

### Gate hoops

Ball-fence Gates come complete with a standard galvanised tubular hoop (42.4mm dia.) to suit a maximum 1500mm opening for single gates or 3000mm for double gates. Hoops can be simply cut down to any length and fitted into the receiver tubes on the gate assembly.

### Value features:

- » Gas strut self closure
- » Fully adjustable.
- » Built-in gate stop.
- » Swing inward or outward.
- » Suits openings up to 3.0 metres (double gates).
- » Use as single or double gates.
- » Can be retrofitted to existing sites.
- » Hot dip galvanised or powder coated finish.
- » Simple installation.

### Specifications

<b>Description:</b>	Ball-fence adjustable gate system.
<b>Material:</b>	Heavy steel construction. Hoop – 42.4 OD (32mm NB) medium gauge tube. (Optional gate post 90 x 1050mm).
<b>Weight:</b>	Complete assembly with 1.5 metre hoop 18kgs.
<b>Finish:</b>	Hot dip galvanised or powder coated.
<b>Height:</b>	Matches up to hand & knee rails on fence.
<b>Opening:</b>	Single gates up to 1.5 metres. Double gates up to 3.0 metres.
<b>Installation:</b>	Bolted to existing posts or any flat or round surfaces

## WARNING

© Barrier Group Pty. Ltd. takes the protection of its intellectual property (IP) seriously and will not hesitate to pursue legal action against any individual, group or organization attempting to steal, copy or duplicate any of its proprietary designs OR anyone who imports, sells or distributes illegal copies or duplicates of its proprietary designs.

**IT'S AGAINST THE LAW – AVOID THE PAIN!**

PART No.	DESCRIPTION
<b>BFG</b>	Ball-fence gate (complete with hoop) – Galvanised
<b>BFG-P</b>	Ball-fence gate (complete with hoop) – Powder coated
<b>BFGP90SM-G</b>	Ball-fence Gate Post 90 x 1050mm – Galvanised
<b>BFGH</b>	Additional 1.5 metre gate hoop



Single galvanised gate (BFG) shown.



Double powder coated gate (BFGP) shown.



Gas strut provides gentle self-closing action.



Built-in gate stop.



Gas strut closure.



Adjustable hoop length.





## BALL-FENCE plus MENNI

Menni is a set of super tough injection moulded modules that plug together like giant Lego™ in any combination.

Applications include protecting physical assets by preventing vehicles from coming into contact with them. Alternatively, when used with Ball-fence, Menni prevents the encroachment of forklifts and other vehicles into pedestrian zones, while protecting the Ball-fence.

Menni is designed and developed in Australia from high tech Linear Low Density Polyethylene (LLDPE) with solid hi-vis safety yellow colour. The super tough impact absorbing modules won't fade, rot, rust or crack and have built-in reflectors for low light environments.

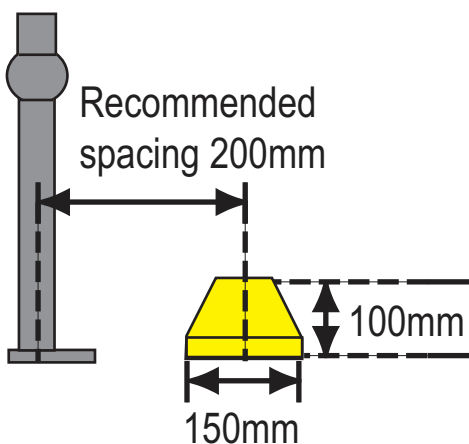
See page 41 for installation procedure.

### Value features:

- » Designed to comply with AS1657:1992 for walkways.
- » Solid colour, U.V. stabilised.
- » Supplied with all fixings and connectors.
- » Slip resistant feature moulded into top surface.
- » Modular components allows modification or replacement at any time.
- » Total flexibility with endless applications.

### Specifications

<b>Description:</b>	Menni modular asset protection system.
<b>Material:</b>	Injection moulded Linear Low Density Polyethylene (LLDPE).
<b>Finish:</b>	Solid colour – Hi-vis safety yellow.
<b>Dimensions:</b>	H100 x W150mm x L540mm (see Section 9 for full details)
<b>Weight:</b>	Approx. 4kgs per metre.
<b>No. of fixings:</b>	2 per module (supplied).
<b>Connector / plugs:</b>	3 per module (supplied).



**⚠ MORE INFORMATION ON MENNI**  
See Page 20.

PART No.	DESCRIPTION
<b>BME-Y</b>	Menni end module – Yellow
<b>BMB-Y</b>	Menni body module – Yellow
<b>BMT-Y</b>	Menni T-intersection module – Yellow
<b>BMC-Y</b>	Menni 90 degree corner module – Yellow
<b>BMR</b>	Optional top reflector plugs



Asset and pedestrian protection.



Menni end module.



Menni body module.



Menni 'T' module.



Menni corner module.

## U-BARS – Double rail

A modular one-piece design U-bar barrier with fully welded knee rail. Suitable for pedestrian barriers at crossing points or traffic management in and around factory/warehouse areas.

Manufactured from 3mm wall steel pipe 48mm in diameter and hot dip galvanised as standard.

Available in either surface mount or below ground models.

All models stand 1040mm high above ground with a fully welded knee rail at 580mm high.

Ideal for schools, shopping centres, walkways or warehouses.

### One-piece design

The fully welded and galvanised one-piece construction makes installation a quick and simple operation. No assembly required.

### Value features:

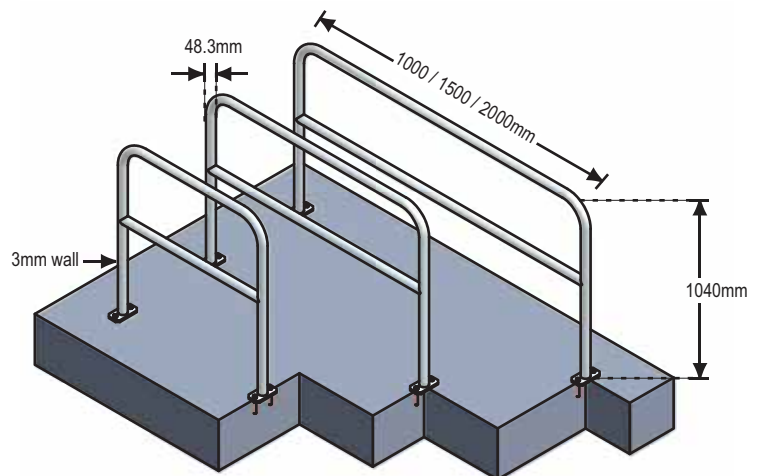
- » Available in three sizes in either below ground or surface mount.
- » Heavy 3mm wall, 48.3 diameter pipe.
- » Fully welded one-piece construction.
- » Hot dip galvanised for outdoor use.
- » No assembly required. Ready for installation.

### Specifications

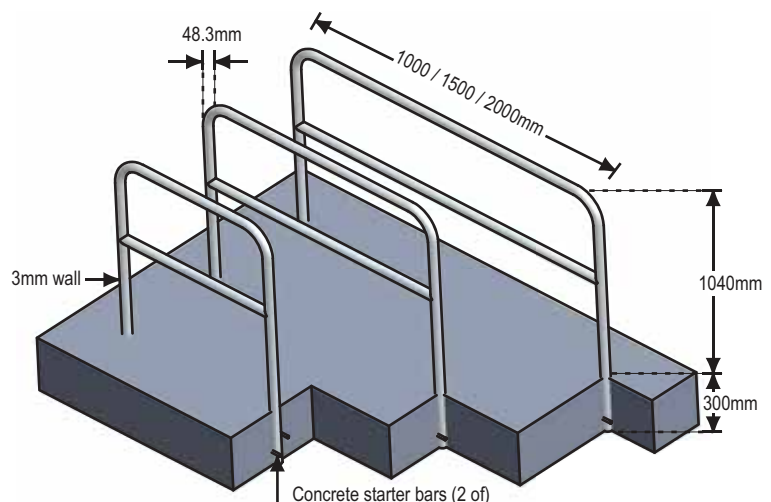
<b>Description:</b>	One-piece double rail U-bars.
<b>Material:</b>	Steel pipe 48.3mm dia. with 3mm wall.
<b>Finish:</b>	Hot dip galvanised (powder coating optional).
<b>Height:</b>	Above ground 1040mm. Below ground 300mm.
<b>Weight:</b>	UBD100 approx. 16kgs. UBD150 approx. 19.5kgs. UBD200 approx. 23.5kgs.
<b>Installation:</b>	Surface mount models base plate 150 x 75 x 10mm. Below ground models come with welded concrete starter bars.
<b>Fixings:</b>	Supplied with surface mount models.



U-Bars supplied hot dip galvanised.



U-BAR DOUBLE RAIL SHOWING SURFACE MOUNT POSTS



U-BAR DOUBLE RAIL SHOWING BELOW GROUND POSTS

PART No.	DESCRIPTION
UBD100SM-G	1.0 metre surface mount double rail U-bar (Galvanised)
UBD100BG-G	1.0 metre below ground double rail U-bar (Galvanised)
UBD150SM-G	1.5 metre surface mount double rail U-bar (Galvanised)
UBD150BG-G	1.5 metre below ground double rail U-bar (Galvanised)
UBD200SM-G	2.0 metre surface mount double rail U-bar (Galvanised)
UBD200BG-G	2.0 metre below ground double rail U-bar (Galvanised)

## POST AND RAIL – Heavy duty

Post & Rail is a modular barrier system for use in car parks, factories, shopping centres, etc. or anywhere vehicles and pedestrians need to be segregated.

Posts are 1050mm high above ground. Rails are available in 2, 3, 4, 5, or 6 metre lengths.

The modular design of 'Post & Rail' ensures barriers can be quickly erected with a minimum of disruption. Suitable for either flat or sloping surfaces.

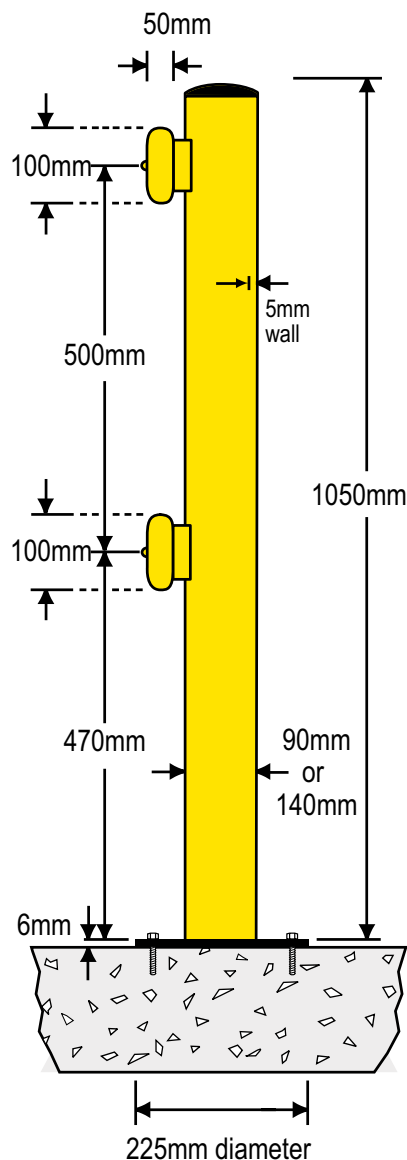
### Value features:

- » Strong 90mm or 140mm diameter posts with 5mm thick walls.
- » 6mm thick base plates with 4 bolt fixing.
- » Galvanised prior to powder coating.
- » Sculpted hand rails in a range of lengths.
- » Suitable on slopes or ramps.

### Specifications

<b>Description:</b>	Modular Post & Rail system.
<b>Material:</b>	Posts 90 or 140mm diameter, 5mm wall. Rails 100 x 50mm tube, 2.5mm wall.
<b>Finish:</b>	Galvanised and safety yellow powder coat.
<b>Height:</b>	Post height 1050mm above ground Rail centres 500mm.
<b>Rail lengths:</b>	2-6 metres.
<b>Weight:</b>	Posts 90mm 9kgs / 140mm 25kgs Rails 4.25kgs per metre.
<b>Installation</b>	4 x 12 x 60mm masonry anchors per post (supplied).

PART No.	DESCRIPTION
PR90SMD	Surface mount post 90mm diameter
PR140SMD	Surface mount post 140mm diameter
PR90BGD	In-ground post 90mm diameter
PR906	6.0 metre rail (replacement) requires 3 posts
PR905	5.0 metre rail (replacement) requires 3 posts
PR904	4.0 metre rail (replacement) requires 2 posts
PR903	3.0 metre rail (replacement) requires 2 posts
PR902	2.0 metre rail (replacement) requires 2 posts



Using standard lengths any layout is possible.



## ECONO-RAIL – Standard duty

Econo-rail is a flexible and economical pedestrian control system that is simple to install.

It consists of surface mount posts and rails in 1, 1.5 or 2 metre lengths.

Rails can be cut on site for special lengths. The system comes complete with connectors and fixings. Ideal where an attractive and practical solution is required to control the movement of pedestrians.

### Value features:

- » All components galvanised prior to powder coating.
- » Powder coated rails available in three standard lengths or can be cut down on site.
- » Comes with all fittings and fixtures.
- » Rails can come off posts at any angle for changes in direction using our unique post to rail adapters.
- » Highly visible safety yellow powder coated finish.



Econo-rail can be configured to any layout.

### Specifications

<b>Description:</b>	Modular economy post & rail system.
<b>Material:</b>	Posts 63.5mm diameter, 1.6mm wall, 1050mm high. Rails 30 x 60mm oval galvanised tube with 1.6mm wall.
<b>Finish:</b>	Galvanised and safety yellow powder coat.
<b>Height:</b>	Post height 1050mm.
<b>Rail lengths:</b>	1.0, 1.5, or 2.0 metres.
<b>Weight:</b>	Posts 4kgs / Rails 2kgs metre.
<b>Installation</b>	3 off 10 x 50mm masonry anchors per post (supplied).



All rails and posts are galvanised and powder coated.

PART No.	DESCRIPTION
ER63-SM	Surface mount post
ER631	1.0 metre rail with connectors
ER6315	1.5 metre rail with connectors
ER632	2.0 metre rail with connectors



Econo-rail can be disassembled and relocated as required.



Rail to post connection.



6mm thick base plate.

## CHANNEL RAIL

Channel Rail is a modular forklift separation system. We developed channel rail for one of Australia's largest retail companies for use in their new 'mega' distribution centres around the country.

Our client brief was for a system which was completely modular, required no on-site welding during installation and required only basic hand tools to replace damaged components. A key feature was that it had to protect the pedestrians from forklift tines, as forks move about the site.

This latter feature is accomplished by using an outwardly facing 200mm high by 6mm thick galvanised channel to trap the fork tines and prevent them deflecting up and into the pedestrian traffic.

### Value features:

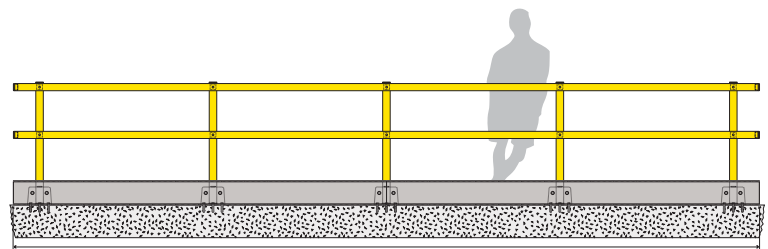
- » Quick & simple to install.
- » Completely modular design.
- » Post & rails powder coated safety yellow.
- » All components are hot dip galvanised.
- » All fixings supplied.
- » Full range of spare parts available.
- » Protects lower limbs from fork tines.
- » Can be customised if required.

### Specifications:

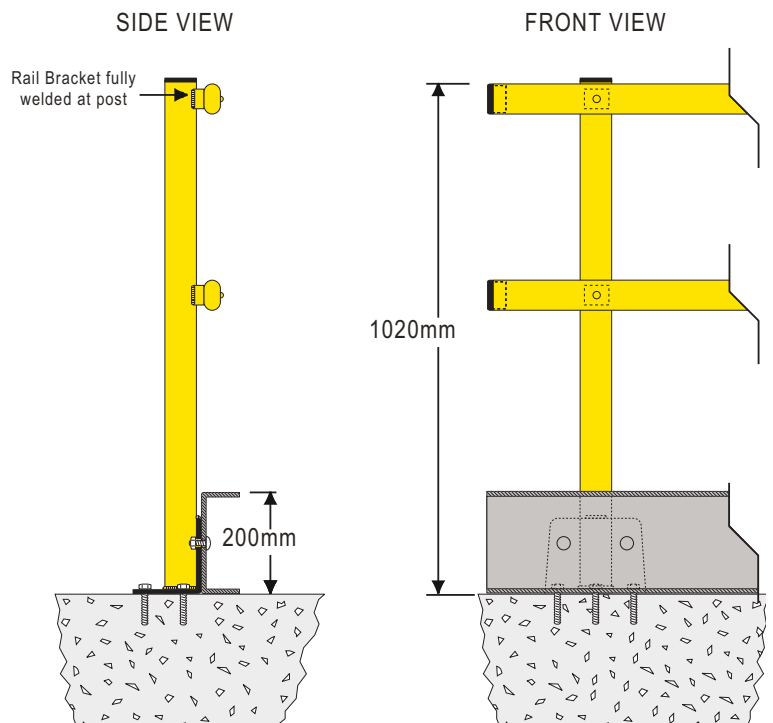
<b>Description:</b>	Modular forklift separation system.
<b>Material:</b>	Posts – 60.3mm dia. x 1020mm high, 3.6mm wall. Safety yellow powder coat. Rails – 30 x 60 x 1.6mm galvanised oval tube. Safety yellow powder coat. Channel – Heavy duty 200 x 75 x 6mm channel galvanised finish.
<b>Weight:</b>	Posts 7.4kgs. Rails 2kgs per metre. Channel 15.5kgs per metre.
<b>Installation:</b>	3 off 12 x 60mm masonry anchors per post (supplied).



6mm thick capture channel helps protect pedestrians.



PART No.	DESCRIPTION
CR10K	1.0m Channel rail kit (2x surface mount posts, 1 x 1m floor channel, 2x 1m rails)
CR15K	1.5m Channel rail kit (2x surface mount posts, 1 x 1.5m floor channel, 2x 1.5m rails)
CR20K	2.0m Channel rail kit (2x surface mount posts, 1 x 2m floor channel, 2x 2m rails)
CR30K	3.0m Channel rail kit (3x surface mount posts, 1 x 3m floor channel, 2x 3m rails)
CR60K	6.0m Channel rail kit (5x surface mount posts, 2 x 3m floor channel, 2x 6m rails)
CR60SM	Surface mount post (replacement)
CR201	Floor channel 1.0 metre (replacement)
CR601	Rail 1.0 metre (replacement)
CR2015	Floor channel 1.5 metre (replacement)
CR6015	Rail 1.5 metre (replacement)
CR202	Floor channel 2.0 metre (replacement)
CR602	Rail 2.0 metre (replacement)
CR203	Floor channel 3.0 metre (replacement)
CR603	Rail 3.0 metre (replacement)
CR206	Floor channel 2 x 3.0 metre (replacement)
CR606	Rail 6.0 metre (replacement)
KIT9	Fixings (1 post)







## POST-Q – Fence system

Post-Q is a modular pedestrian separation fence system that can absorb minor impacts, is non-conductive, corrosion and abrasion resistant and can be used indoors and outdoors.

Using the galvanised steel posts provided, Post-Q is simple to install with a high level of design flexibility. Strong galvanised posts and moulded polyethylene panels with solid colour, ensure an extremely durable fence system. Post-Q is highly visible, won't fade, rot, rust or crack and is almost completely maintenance free.

### Value features:

- » Strong, flexible, lightweight and highly visible.
- » Ease of installation with design flexibility.
- » Solid moulded colour.
- » Virtually maintenance free.
- » Maximum panel opening 80mm (child safe).
- » Panels can be cut down as required.

### Specifications:

<b>Description:</b>	Modular post-mounted pedestrian separation fence.
<b>Material:</b>	Post-Q – Blow moulded polyethylene. Posts – Surface mount galvanised steel 875mm long.
<b>Finish:</b>	Post-Q – Solid colour safety orange. Posts – Hot dip galvanised.
<b>Height:</b>	Floor to top of panel 1000mm.
<b>Weight:</b>	Panel (including posts) – 14kgs approx.
<b>Fixings:</b>	Supplied with masonry anchors 16 x 65mm.
<b>Galvanised Posts:</b>	The internal posts used in Post-Q are manufactured from 48.3mm diameter hot dip galvanised steel with a welded base plate for surface mounting. Post mounting leaves the Q-Panels elevated above the floor for ease of cleaning.



Post-Q – fixed posts with flexible panels.



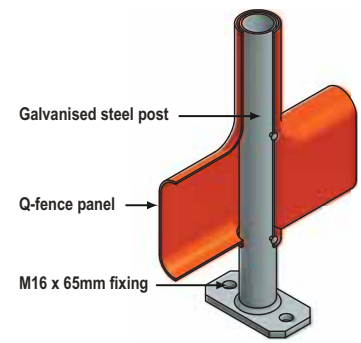
Sliding panel connector for uneven ground.



Galvanised mounting posts.

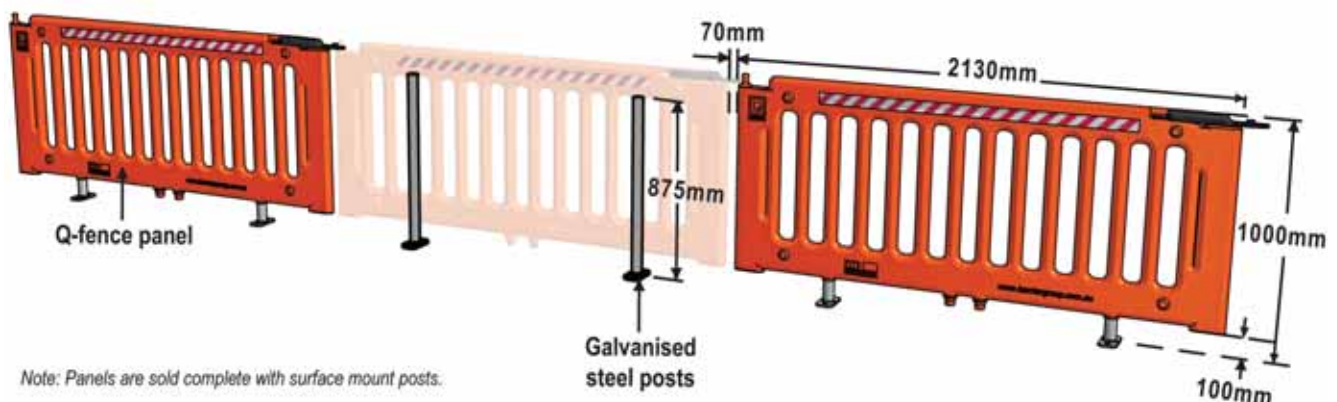


Recessed reflective panels.



Cross-section.

PART No.	DESCRIPTION
PQ2130	Post-Q fence panel with 2 galvanised posts
QFP-SM	Additional Q-fence posts with fixings



Note: Panels are sold complete with surface mount posts.



## MENNI-Q – Fence system

Menni-Q is a modular pedestrian separation fence system that is impact absorbing, non-conductive, corrosion and abrasion resistant and can be used indoors and outdoors.

The modular nature of Menni-Q provides a high degree of design flexibility. The components are moulded from Linear Low Density Polyethylene (LLDPE) with solid colour.

This ensures an extremely durable fence system that is highly visible, won't fade, rot, rust or crack and is almost completely maintenance free.

### Value features:

- » Strong, flexible, light weight and highly visible.
- » Ease of assembly with design flexibility.
- » Solid moulded colour.
- » Virtually maintenance free.
- » Maximum panel opening 80mm (child safe).
- » Panels can be cut down as required.
- » Drainage channels prevent water pooling.

### Specifications:

<b>Description:</b>	Modular pedestrian separation fence.
<b>Material:</b>	Menni-Q – Blow moulded polyethylene. Menni modules – Injection moulded polyethylene. Internal posts – Fibre reinforced plastic.
<b>Finish:</b>	Menni-Q – Solid colour safety orange. Menni – Solid colour safety yellow.
<b>Height:</b>	Floor to top of panel 1000mm.
<b>Panel length:</b>	2130mm.
<b>Weight:</b>	Panels & Menni – 10kgs/metre approx.
<b>Fixings:</b>	Supplied.
<b>FRP posts:</b>	The internal posts used in Menni-Q are manufactured from 50mm diameter Fibre Reinforced Plastic with a 5mm thick wall. FRP combines incredible strength with flexibility, allowing the Menni-Q fence to absorb considerable impact without damage.

PART No.	DESCRIPTION
MQ2130	Menni-Q fence panel with posts – Safety Orange
BME-Y	Menni end module – Yellow
BMB-Y	Menni body module – Yellow
BMT-Y	Menni T-intersection module – Yellow
BMC-Y	Menni 90 degree corner module – Yellow



Menni-Q – strength with flexibility.



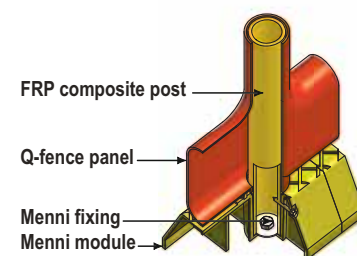
Sliding panel connector for uneven grounds.



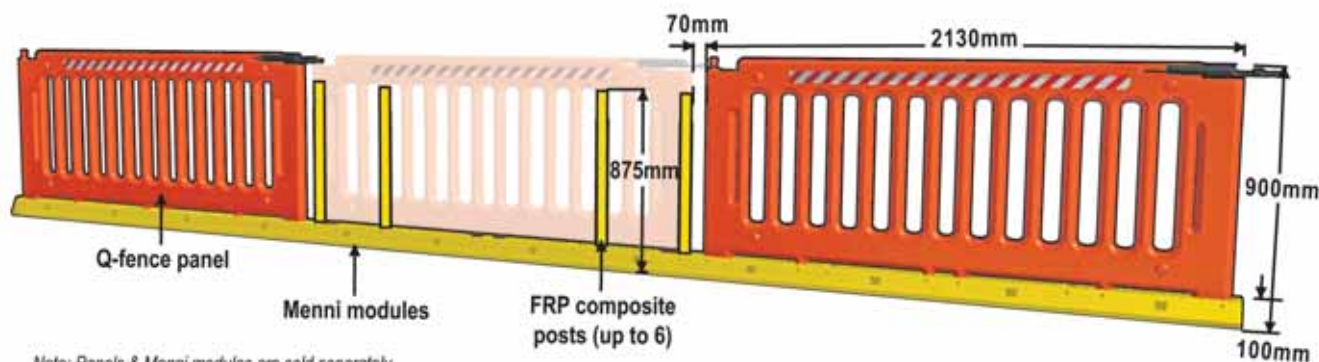
Moulded in drainage channels to avoid water pooling.



Recessed reflective panels.



Cross-section.



Note: Panels & Menni modules are sold separately.

## MENNI

### Installation Procedure:

1. Using a chalk line, set out and position Menni modules **and connect together with connector plugs supplied.**  
With a 10mm drill bit and impact drill, pilot drill the mounting holes for each module. (PHOTO'S 1 & 2).
2. Move the modules to one side and drill pilot holes with a 14mm drill bit 100mm deep. (*Note: If using concrete screw bolts instead of plastic plugs and coach screws drill size is only 10mm*). Clean dust from holes, insert plastic Hilti plugs and hammer flush with floor. (PHOTO'S 3 & 4).
3. Reposition Menni modules over holes and insert fixings making sure to use the large diameter washers supplied. (PHOTO 5).
4. Using an appropriate sized socket wrench or impact driver, tighten fixings. (PHOTO 6).
5. Go over completed installation and tighten all connections.
6. Fit blanking plugs supplied into fixing sockets and clean the site to complete your installation.  
*Note: Optional reflector plugs are available if required for improved night time visibility.*  
(PHOTO 7).

### Notes:

- The moulded plastic caps supplied double as hole plugs and module connectors.
- To achieve long, straight lines use a string or chalk line.
- On completion check all fixings are tight.



### WHAT YOU WILL NEED

- Tape measure and string line.
- Impact drill and masonry bits.
- Socket wrench or impact driver.
- Hammer.



1.



2.



3.



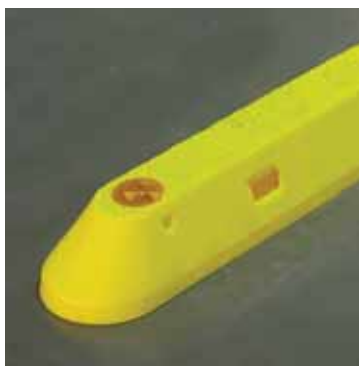
4.



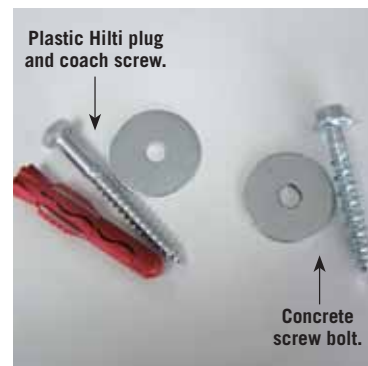
5.



6.



7. Shown with optional top reflector plug.



The two types of fixings available.



# CUSTOM MADE?



Custom height bar installation.



Custom bollard installation.



Custom core-drilled removable barrier.



Custom crowd control barrier (Werribee Mansion).



Custom De-Fence machinery guarding.



Custom single swing gate.

**Just Ask!**