



RB22 Barrier

Specification Sheet
RBS160000

22/07/24

safesite[®]
F A C I L I T I E S



Heavy duty crash tested RB22 Barrier

The versatility and stability that the barrier offers together with its ease of use and transportation secures its unrivalled position in the market.

The RB22 barrier is extremely versatile and can be used on a multitude of sites and in conjunction with many different products. These water-filled barriers are crashed tested and designed to withstand impacts from errant vehicles travelling up to 50 mph. RB22s can be installed without the need for specialist equipment and can be set up to navigate sweeping curves and 90° angles.

These barriers are ideally suited as borders for temporary roadworks, or locations where the public and workers need to be protected from moving vehicles. When filled, these HDPE barriers weigh over half a tonne, and are able to absorb moderate speeds and deflect vehicles away. The RB22 barriers interlock with steel pins and screw together with flat steel plates to add strength and stability.

When empty the barriers weigh a modest 60kg. The barriers are easy to empty and feature a small plug at the base of the unit for drainage. When filling barrier, fill to the top to get the maximum weight of 600kg.

RB22 Barrier Specification

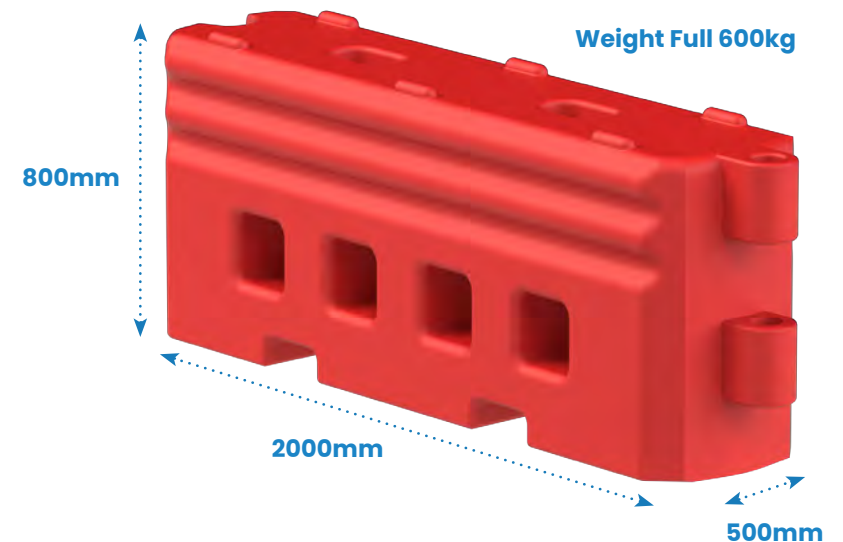
Measurements in mm

Length*	Width	Height	Weight (kg)	Weight Full (kg)	Colour	Product ID
2000	500	800	60	600	Red	RBS160000
2000	500	800	60	600	White	RBS160010

*Working length**

Key Features

- ▶ Tested and proven compliance with the following British Standards: BS EN1317 - N1 50 MPH test
- ▶ Minimal supplementary parts to ensure ease of installation
- ▶ Can be securely stacked, stored, and transported
- ▶ Compatible with a range of mesh and hoarding panel systems
- ▶ Manufactured from prime UV stabilised polyethylene
- ▶ Compatible with a range of vehicle and pedestrian gates
- ▶ Corporate colours and name plating
- ▶ Wide forklift slots at base



Please read on for a detailed illustration of the large range of products that can be used with the RB22 Barrier including mesh and hoarding.



RB22 Barrier with hoarding

Hoarding is an excellent way to add privacy and protection quickly and easily.

The RB22 can be used as a solid, above-ground base onto which you can fit hoarding panels. The panels slot easily into the ends of the barriers and are fixed in place with steel pins.



Hoarding & Add-On Specifications

Measurements in mm

Item	Length/Width	Depth	Height	Overall Height	Weight (kg)	Product ID
Connection post	175	70	1870	-	9	RBS160400
Hoarding	1863	40	1400	2255	25	RBS160300
Infill panel	1348	40	1360	n/a	5	RBS160700
Mesh fence add-on	1863	38	620	2875	8	RBS160360

Key Features

- > Wind resistance of up to 44 mph
- > Robust, temporary hoarding solution
- > Colour options available
- > Fence pole weight is just 10.2 kg

Hoarding panels



Hoarding infill panel



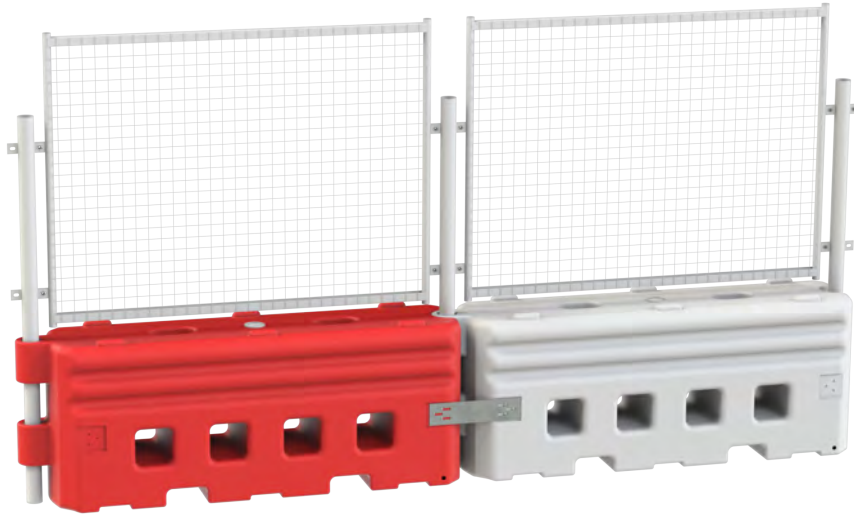
Please note: Adding infill panels will change the wind loading capabilities



RB22 Barrier with mesh fence panels

Our anti-climb mesh fence panels allow for professional, obscured view of your site whilst keeping intruders out. When fitted to the RB22, this above ground, stable solution can with stand wind speeds of up to 77.8mph.

The mesh panels can be supplied in a powder coated or galvanised finish. As with the hoarding panels, the mesh panels are fixed in place with a vertical pin and the barriers are screwed together using a metal fixing plate.



Mesh Fence & Add-On Specifications

Measurements in mm

Item	Length/Width	Depth	Height	Overall Height	Weight (kg)	Product ID
Connection post	175	70	1870	-	9	RBS160400
Mesh panel	1863	40	1400	2255	8.7	RBS160320
Mesh fence add-on	1863	38	620	2875	8	RBS160360

Key Features

- ▶ Light and easy to handle
- ▶ Can be easily stacked, stored, and transported - 25 panels fit on to a single pallet
- ▶ Quick installation
- ▶ Wind resistance of up to 77.8 mph
- ▶ Colour options available
- ▶ Fence pole weight is just 10.2 kg

Mesh fence panels



Angled mesh panel





RB22 Barrier with hoarding & mesh solution

The combined hoarding and mesh panel solution offers the best of both worlds. You can obscure view of any untidiness or valuables, as well as allow for natural daylight on the site.

This option demonstrates how truly versatile the RB22 Barriers and panel options can be. Despite being comprised of two elements, the panel is easy to install and forms a single unit. You can also extend the overall height of the solution with the simple addition of a small mesh fence panel. The combination of the mesh and solid hoarding panel results in a total wind resistance of 60 mph.



Hoarding / Mesh Fence & Add-On Specifications

Measurements in mm

Item	Length/Width	Depth	Height	Overall Height	Weight (kg)	Product ID
Connection post	175	70	1870	-	9	RBS160400
Hoarding / Mesh panel	1863	40	1400	2255	17	RBS160340
Mesh fence add-on	1863	38	620	2875	8	RBS160360

Key Features

- ▶ Light and easy to handle
- ▶ Versatile and interchangeable with other elements
- ▶ Can be easily stacked, stored, and transported - 25 panels fit on to a single pallet
- ▶ Quick installation
- ▶ Anti-climb mesh
- ▶ Wind resistance of up to 60 mph
- ▶ Colour options available
- ▶ Fence pole weight is just 10.2 kg

Half hoarding & fence next to vehicle gate



Half hoarding & half fence panel





RB22 Barrier – Vehicle & pedestrian gates

It is possible to install both a vehicle and pedestrian access point in our RB22 Barrier system. With the simple addition of an adaption pole, a flagpole can be used to fix a range of gate sizes and types to the RB22 system.

Just as we can offer with the perimeter solution, we can offer steel hoarding, mesh panels and hybrid (mesh/hoarding panels), to suit your site whatever the location, weather, or nature of your site needs.

The gates are secured in position using ballast blocks which are highly durable and purpose-built for outdoor sites including muddy and uneven surfaces. The simple and easy installation of the gates means that they are quick to install, secure and straight-forward to update.

Flag poles can also be used to create 90-degree corners within the RB22 system. Below we have featured a few illustrations of the options available to you, as well as a table with all sizes and dimensions. You may also find our range of CCTV, lighting, and security solutions valuable in conjunction with these products.

RB22 Pedestrian Gate Accessories Specifications

Measurements in mm

Item	Depth	Length	Width	Height	Weight (kg)	Product ID
Adaption pole	40	-	80	2000	2	RBS160905
Large flag mesh	40	-	257	2300	4	RBS160800
Small flag mesh	40	-	167	2300	3.8	RBS160820
Adaption pole hoarding	40	-	80	2000	4	RBS160915
Large flag hoarding	40	-	257	2300	5.5	RBS160830
Small flag hoarding	40	-	167	2300	5	RBS160850
Rubber fence feet	-	770	190	120	13.5	TFS100605

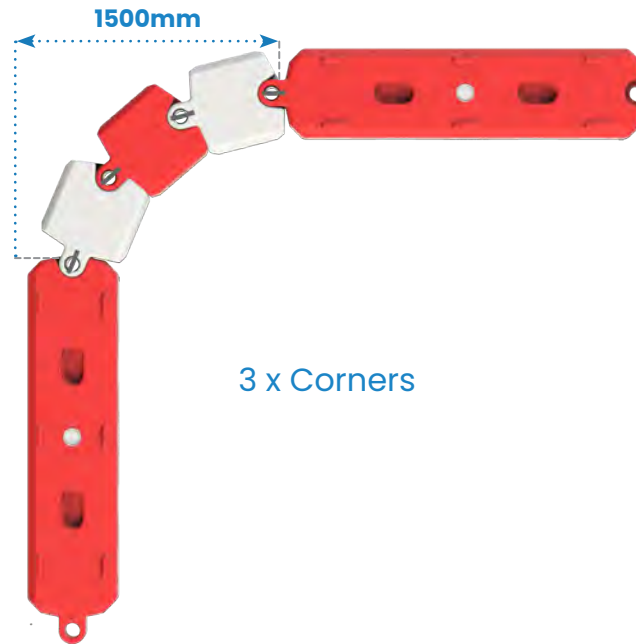




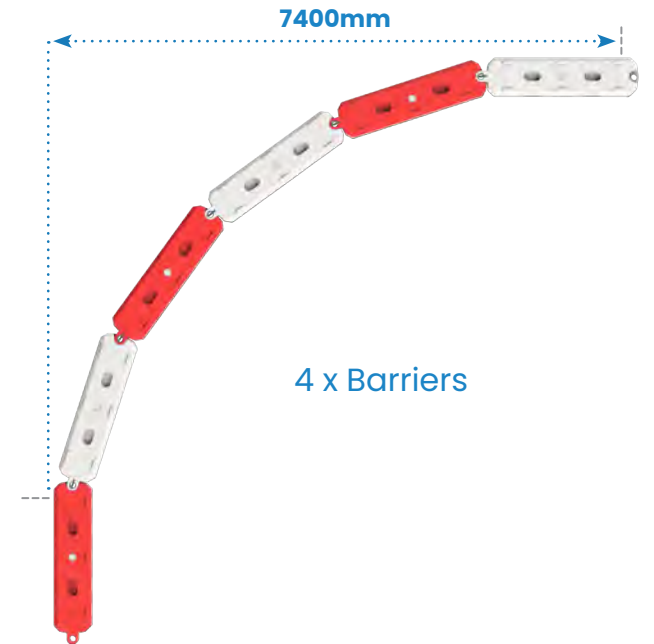
End and corner sections

In addition to its versatility in terms of fence and panel products, the RB22 Barriers can also be used to navigate sweeping corners and 90° angles.

The RB22 barrier's design and strength when filled, means they're ideal for use on racetracks and highways as a substantial traffic safety solution.



3 x Corners



4 x Barriers

RB22 Ends & Corner Section Specifications

Measurements in mm

Item	Length	Width	Height	Weight (kg)	Product ID
End Stop - Red	680	500	800	12	RBS160070
End Stop - White	680	500	800	12	RBS160080
Angle Barrier - Red	680	500	800	12	RBS160100
Angle Barrier - White	680	500	800	12	RBS160110

Angle section single unit



Linked angled sections



End stop section





Crash test summary

The RB22 barrier is designed to bring a vehicle to a controlled stop. The strength of the barrier was fully tested by TRL and achieved the following British Standard: BS EN1317 – N1 50 MPH.

The RB22 was tested under these specific conditions:

- ▶ Impact angle: 25.0°
- ▶ Vehicle mass: 1,300 kg

TRL



Initial point of impact



Degree of deflection at point of highest force



Crash Test Summary

Vehicle:

- ▶ Velocity and angle values were within tolerance limits
- ▶ The vehicle did not breach the device
- ▶ The vehicle did not leave the permitted CEN box
- ▶ The vehicle did not roll over within the test area
- ▶ No part of the vehicle was detached

Device:

- ▶ No part of the barrier penetrated the interior of the vehicle
- ▶ No part of the barrier was ejected



Wind load test summary

The RB22 Barrier has been rigorously tested within the MIRA wind tunnel and achieved multiple 'Class A' passes.

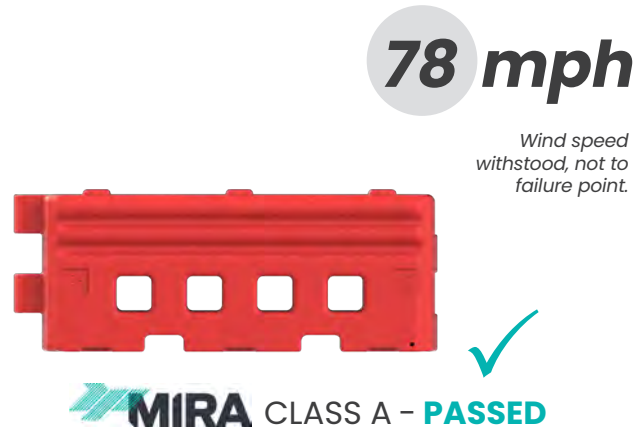
The 600kg stability of these water-filled barriers is unsurpassed by any other base (that can be installed without specialist equipment).

On its own, the RB22 can withstand speeds of up to 78 mph. The level of wind resistance offered by this temporary solution depends on the level of mesh you incorporate into the system.

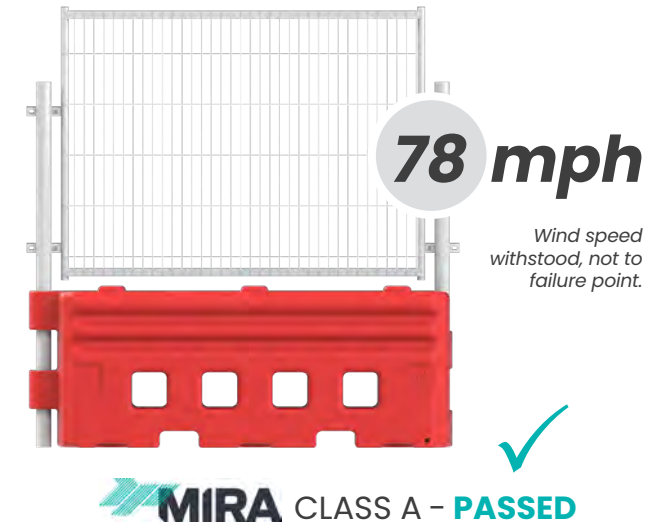
You can adjust the level of mesh and solid panel hoarding you use, according to the different wind load speeds and requirements of your site.

The MIRA Class passes, and the wind resistance speeds achieved for each panel is displayed here.

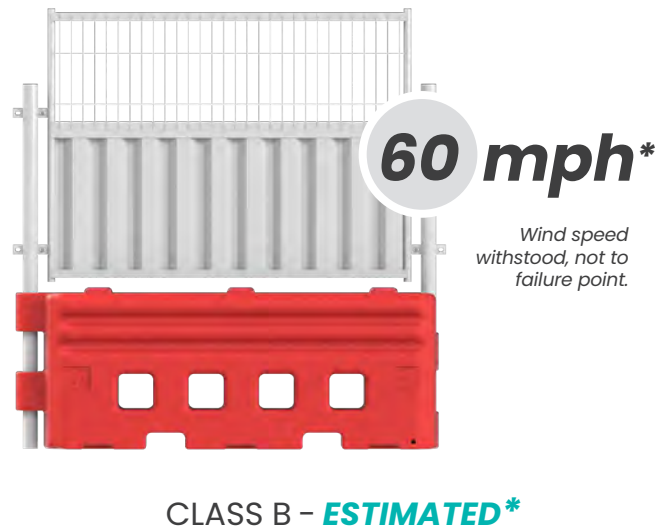
1 RB22 Barrier Single Unit



2 RB22 Barrier + Mesh Fence Panel



3 RB22 Barrier + Half Hoarding, Half Mesh Panel



4 RB22 Barrier + Hoarding Panel





Installation parts

RB22 Water Filled Barrier - Measurements in mm

Please see below pictures and quantities of additional parts you will receive with each RB22 Barrier. The parts below are an essential safety requirement when installing the RB22 correctly.

Standard part

1 Qty 1: Connection pin.



Thickness	Length	Width	Weight (kg)
2	800	82	3.2

Standard part

2 Qty 1: M6 x 16mm GR8.8 HEX connection pin lock down screw.



Length	Width	Height	Weight (g)
16	6	-	74

Standard part

3 Qty 2: Metal side plates.



Thickness	Length	Height	Weight (kg)
4	450	110	1.5

Standard part

4 Qty 12: M12 x 25mm side plate screws.



Length	Width	Height	Weight (g)
25	12	-	52

Standard part

5 Qty 1: Drainage plug per barrier. Qty 1: Key in total.



Accessory part

1 Qty 2: Fencing / hoarding connection posts for connecting one panel unit.



Thickness	Width	Height	Weight (kg)
2.5	76.2	1870	9

Accessory part

2 Qty 4: M10 x 40mm bolts & 8 washers for securing one panel unit.



Length	Width	Height	Weight (g)
40	10	-	45

Accessory part

3 Qty 1: Fence or hoarding panel per barrier with fixings listed.



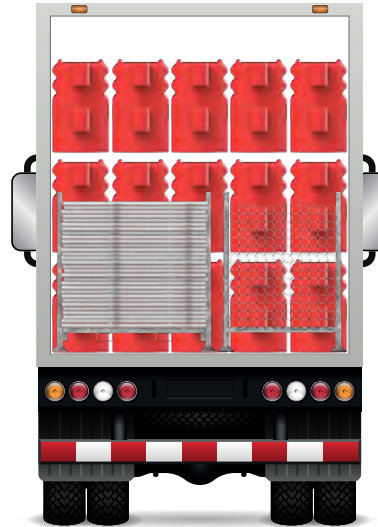
Thickness	Width	Height	Weight (kg)
41	1860	1400	19



1

As viewed from trailer rear

Load from side
.....>
Stack as shown
for trailer length



2



Stacking & packing guide

Despite weighing a colossal 600kg when filled, the barriers weigh 60kg when empty.

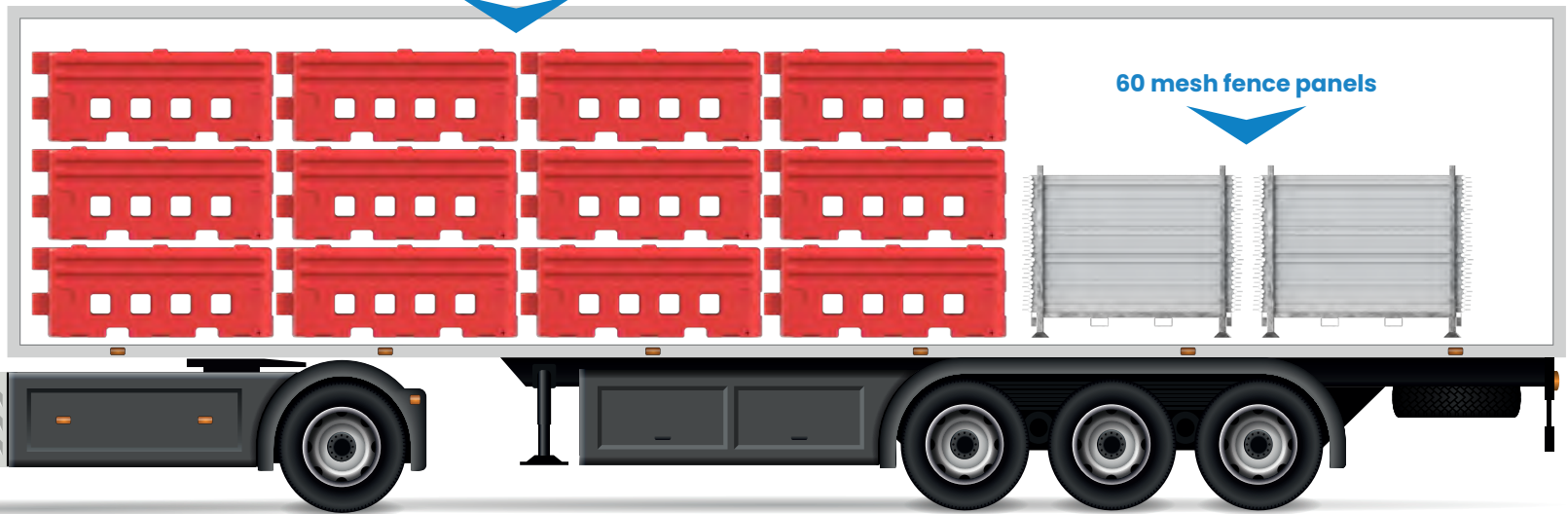
The illustration on the right shows how these barriers can be loaded and stacked on a lorry.

A total of 90 RB22 Barriers, or 60 RB22s and 60 panels can fit on a single artic lorry.

The diagram below demonstrates the correct loading formation for barriers and mesh fence panels.

60 RB22 barriers

60 mesh fence panels





Technical Details

RB22 Barrier

