



The mark of responsible forestry

'Look for FSC® certified products'



Street Design

Unit 35 Hayhill Industrial Estate Barrow upon Soar Leicestershire LE12 8LD
01509 815335 sdl@street-design.com www.street-design.com

UK Street Furniture Designers & Manufacturers

GRENADIER planter

The Grenadier planter is a versatile, budget, all timber planter suitable for a wide range of applications. It is available with a choice of material and finishes.

Choose from a range of accessories to ensure that the Grenadier planter is manufactured to suit your specific requirements.

Grenadier planters are suitable for:

- Roof Garden planters
- Modular planters
- Tree planters
- Large planters
- Barrier planters
- Shaped planters
- Moveable planters
- Planter Walling (without base)
- Planters with integral bench seating

Planters & Planters with Benches

Planters, Accessories & other Products

Product Details

Product Specification

Accessories

Watering System

Adjustable Feet

Material Specifications

Care & Maintenance



580mm high Grenadier roof garden planters in natural finish FSC®-certified treated redwood

GRENADIER planter

PLANTERS & PLANTERS WITH BENCHES

Other sizes and shapes available



3VPGR 01
Square planter
Length: 1000mm
Width: 1000mm
Height: 920mm
All other sizes available



3VPGR 02
Rectangular planter
Length: 2000mm
Width: 1000mm
Height: 920mm
All other sizes available



3VPGR 03
Rectangular planter
Length: 2500mm
Width: 1000mm
Height: 920mm
All other sizes available



3VPGR 05
Tall planter
Length: 500mm
Width: 500mm
Height: 1210mm
All other sizes available



3VPGR 06
Raised planter
Length: 2000mm
Width: 750mm
Height: 800mm
All other sizes available



3VPGR 15
Planter with 4 benches
Length: 1950mm
Width: 1950mm
Height: 920mm
All other sizes available



3VPGR 11
Tiered planter
Outer planter
Length: 1500mm
Width: 1500mm
Height: 485mm
Inner planter
Length: 500mm
Width: 500mm
Height: 1210mm
All other sizes available



3VPGR 12
Stepped planter
Length: 1800mm
Width: 600mm
Heights: 630, 1210mm
All other sizes available



3VPGR 17
Planter with benches
Length: 2500mm
Width: 1800mm
Height: 530mm
All other sizes available



3VPGR 19
Planter with benches
Length: 2800mm
Width: 435mm
Height: 530mm
All other sizes available



3VPGR 18
Planters with bench
Length: 5400mm
Width: 505mm
Height: 485mm
All other sizes available



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3VPGR 20
Planter with benches
Length: 5810mm
Width: 800mm
Height: 530mm
All other sizes available



3VPGR 04
Large Grenadier planter
Length: 12500mm
Width: 2500mm
Height: 630mm
All other sizes available



3VPGR 07
Long Grenadier planter
Length: 10000mm
Width: 1000mm
Height: 920mm
All other sizes available



3VPGR 13
Large stepped planter
Length: 5000mm
Width: 1000mm
Height: 485, 775mm
All other sizes available



3VPGR 14
Planter with storage box
Length: 6000mm
Width: 1500mm
Height: 675mm
All other sizes available



3VPGR 16
Shaped planter & benches
Length: 6000mm
Width: 2000mm
Height: 775mm
All other sizes available

GRENADIER planter

PLANTERS, ACCESSORIES & OTHER PRODUCTS

Other sizes and shapes available



3VPGR 21
Planter with tree benches
Length: 7994mm
Width: 1945mm
Height: 530mm
All other sizes available



3VPGR 22
Planter walling only
Length: 6165mm
Width: 2000mm
Height: 630mm
All other sizes available

Planters with Accessories



3VPGR 23
Planter with screen
Length: 2000mm
Width: 1000mm
Height: 1630mm
All other sizes available



3VPGR 24
Planter with trellis
Length: 2000mm
Width: 1000mm
Height: 1630mm
All other sizes available



3VPGR 25
Planter with pergola
Length: 2000mm
Width: 1000mm
Height: 2351mm
All other sizes available

Co-ordinating products



3VPGR 26
Bench
Length: 2000mm
Width: 435mm
Height: 530mm
All other sizes available



3VPGR 27
Lounger
Length: 2000mm
Width: 2000mm
Height: 530mm
All other sizes available



3VPGR 28
Table
Length: 2000mm
Width: 987mm
Height: 808mm
All other sizes available



3VPGR 29
Storage box
Length: 2000mm
Width: 435mm
Height: 530mm
All other sizes available



3VPGR 30
Decking pod
Length: 2000mm
Width: 2000mm
Height: 195mm
All other sizes available



3VPGR 31
Grass pod
Length: 2000mm
Width: 2000mm
Height: 195mm
All other sizes available



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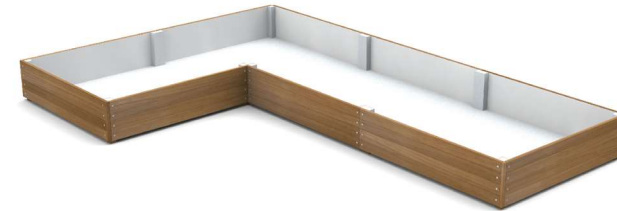
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Shaped planters

Other sizes and shapes available



3VPGR 08
Planter with angled end
Length: 2800mm
Width: 1200mm
Height: 630mm
All other sizes available



3VPGR 09
L shaped planter
Length: 7500mm
Width: 5000mm
Height: 630mm
All other sizes available



3VPGR 10
Planter with angled ends
Length: 6244mm
Width: 4458mm
Height: 630mm
All other sizes available

GRENADIER planter

PRODUCT DETAILS

General

The Grenadier external planter is a versatile, multi-use and cost effective planter, available in a choice of materials and finishes to suit your scheme and budget.

The planter is available in either FSC®-certified hardwood or a FSC®-certified treated European, joinery quality redwood. Planters up to 2.8x2.8m plan size will be delivered fully assembled ready for planting.

Larger planters will be manufactured in sections and delivered for assembly on site.

Shaped planters can be manufactured and supplied to any straight sided shape.

Planters can be manufactured with additional steel support to enable the planters to be moved when fully planted.

Construction

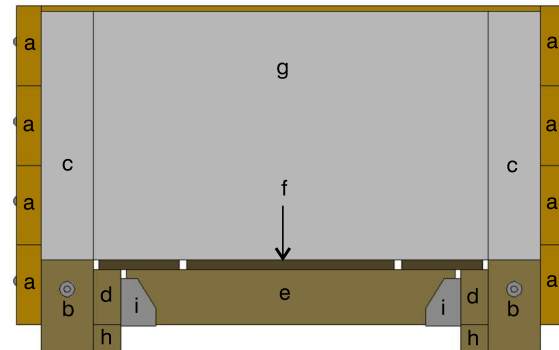
The Grenadier, all timber planter, is constructed by bolting 145x45mm section horizontal walling slats to 95x95mm section posts. 45x45mm corner fillets are fitted to the external corner to ensure a neat detail.

The internal base is constructed using 100x47mm treated softwood bearers, fixed to the posts and fitted to joist hangers fixed to the main bearers. FSC®-certified hardwood faced plywood is fixed down onto the bearers. 45mm high timber blocks are fitted to the underside of the bearers, to ensure that the load is safely transferred to the ground.

When fully constructed, the inside of the planter is fully lined with a geo-textile lining, that allows water to drain through whilst retaining the soil fines.



Section thro' planter



Key

- a - 145 x 45mm FSC®-certified horizontal timber slats
- b - M12 x 160mm cup square coachbolts
- c - 95 x 95mm FSC®-certified timber corner posts
- d - 100 x 47mm FSC®-certified timber side bearers
- e - 100 x 47mm FSC®-certified timber cross bearers
- f - 18mm FSC®-certified hardwood faced plywood
- g - Terram 1000 geo-textile membrane filter lining
- h - 45mm high FSC®-certified timber blocks

Typical plan sizes, heights and basic shapes of Grenadier planters

Plan dimensions and material options	all other sizes, heights and plan shapes can be manufactured and supplied					
	Planter heights					
Square						
0.5 x 0.5m	485mm	630mm	775mm	920mm	1065mm	1210mm
FSC®-certified softwood	●	●	●	●	●	●
FSC®-certified hardwood	●	●	●	●	●	●
1.0 x 1.0m						
FSC®-certified softwood	●	●	●	●	●	●
FSC®-certified hardwood	●	●	●	●	●	●
1.2 x 1.2m						
FSC®-certified softwood	●	●	●	●	●	●
FSC®-certified hardwood	●	●	●	●	●	●
1.5 x 1.5m						
FSC®-certified softwood	●	●	●	●	●	●
FSC®-certified hardwood	●	●	●	●	●	●
2.0 x 2.0m						
FSC®-certified softwood	●	●	●	●	●	●
FSC®-certified hardwood	●	●	●	●	●	●
2.8 x 2.8m						
FSC®-certified softwood	●	●	●	●	●	●
FSC®-certified hardwood	●	●	●	●	●	●
Rectangular						
1.0 x 0.5m	485mm	630mm	775mm	920mm	1065mm	1210mm
FSC®-certified softwood	●	●	●	●	●	●
FSC®-certified hardwood	●	●	●	●	●	●
2.0 x 1.0m						
FSC®-certified softwood	●	●	●	●	●	●
FSC®-certified hardwood	●	●	●	●	●	●
2.8 x 1.0m						
FSC®-certified softwood	●	●	●	●	●	●
FSC®-certified hardwood	●	●	●	●	●	●

GRENADIER planter

PRODUCT SPECIFICATION



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Technical information						
Material						
Horizontal walling slats	145x45mm FSC®-certified treated redwood or FSC®-certified hardwood					
External corner detail	45x45mm FSC®-certified treated redwood or FSC®-certified hardwood					
Internal corner posts	95x95mm FSC®-certified treated redwood					
Base bearers	100x47mm FSC®-certified treated redwood carcassing					
Base flooring	18mm FSC®-certified exterior hardwood faced plywood					
Fixings	M10 and M12 size Bright Zinc Plated (BZP)					
Standard finish	Natural					
Optional finish on request	Stained					
Accessories	Adjustable feet on a mild steel frame Tree anchor fittings Bench seating Watering systems Trellis panels and pergola structures Inner tower planters					
Guarantee	All planters are guaranteed for 15 years minimum					
Walling heights (mm)	485	630	775	920	1065	1210
Planting depths (mm)	317	462	607	752	897	1042
Weights						
Treated redwood planter walls (kgs / lm)	12	17	22	27	32	37
Hardwood planter walls (kgs / lm)	16	21	27	33	39	45
Planter base (kgs / m ²)	11	11	11	11	11	11
Light fill material can be based on:	1000 kgs / m ³					
Heavy fill material can be based on:	2000 kgs / m ³					

Timber policy

All treated softwood planters are manufactured using materials obtained from growers who operate under the Forest Stewardship Council (FSC®).
All iroko hardwood planters are manufactured using materials obtained from growers who operate under the Forest Stewardship Council (FSC®).

Assembly

Planters up to 2.8 x 2.8m will be delivered to site fully assembled for off loading and positioning on site. Planters larger than 2.8m will be supplied in sections for bolting together on site.

Materials

Hardwood planters are constructed from FSC®-certified hardwood, from sustainable sources. Softwood planters are constructed using FSC®-certified redwood that has been pressure treated, for a desired service life of 15 years minimum, in ground contact.
All mild steel fixings will have a (BZP) bright zinc plated finish.
Planters will be fitted with a Terram 1000, geo-textile filter fabric lining, which allows the water to drain through the planter, while retaining the fill material.

Standard finish

FSC®-certified treated redwood and FSC®-certified hardwood will be left natural to help reduce on-going maintenance costs.



Grenadier planter with optional Mona watering system



Grenadier planter with optional Henley planter benches on 4 sides



Grenadier planters loaded ready for delivery to site

Grenadier planters are manufactured to order.
Before we can manufacture the planters, we need to know the following:

- Plan size and shapes
- Heights
- Material
- Finish
- Details of any accessories

Accessories

To enhance your Grenadier planter and create a product that is suitable for your specific application, you can add from a range of planter accessories.

- Tree anchors
- Adjustable feet
- Watering system
- Integral bench seating
- Internal steel frame
- Pergola structures
- Trellis panels

GRENADIER planter

ACCESSORIES

Grenadier planters can be manufactured and supplied to include a range of optional accessories.

Planters can incorporate; adjustable feet, tree anchor fittings, watering systems, bench seating, pergolas and trellis panels.

Adjustable feet

Grenadier planters can be manufactured with optional adjustable feet to allow the planter to be height adjusted to ensure that the top of the planter is level. The adjustable feet, allow the planter to be levelled after relocation. See separate page for Adjustable Feet details.

Watering system

Grenadier planters can be supplied with a choice of 2 watering systems. Street Design can supply either a reservoir system, with filler pipe or the Mona, subterranean tank system. See separate page for Watering System details.

Moveable planters

Grenadier tree planters can be supplied with an internal steel frame to allow the planters to be moved whilst fully planted. The steel frame provides additional strength and ensures suitable supports for the forklift tines.

Pergola structures and trellis panels

By extending the planter posts, pergola structures and trellis panels can be integrated into the planter construction. Pergolas and trellis allow high level planting and create shaded areas.

Tree anchor fittings

Grenadier tree planters can be fitted with galvanised mild steel tree anchor points. They can be fitted at the bottom of the planter to help support the root ball and they can be fitted at the top of the planter to help provide support for the tree. The tree anchors are manufactured using 25x5mm mild steel flat.

Tree anchor fittings - continued/

They have two punched slots and are fitted to the projecting bolt ends on the inside of the planter. The tree anchors are hot dip galvanised.

Bench seating

Integral planter benches, with or without armrests, can be supplied with Grenadier planters. As standard 2 bench designs are available. Other designs can be included upon request. The Bexley bench consists of 4 no. 70x45mm timber slats and the Henley bench has 2 no. 145x45mm wide bench slats. The timber slats bolt onto galvanised mild steel brackets, bolted to the planter sides. Benches can be fitted to 1, 2, 3 or 4 sides to suit your requirements. The choice of material and finish is the same as for the planter. As standard the brackets will have a galvanised finish. As an optional extra, they can be polyester powder coated.

Storage boxes

Grenadier planters can be manufactured and supplied with integral storage boxes. The storage boxes are particularly useful for roof gardens planters, to provide storage areas for local residents. The hinged lids are supplied with a hasp and staple.



Henley planter benches



Timber trellis



Storage box

Planter bench configurations



bench on 1 side



bench on 2 sides opposite



bench on 2 sides adjacent



bench on 2 sides adjacent (mitred)



bench on 3 sides



bench on 3 sides (mitred)



bench on 4 sides



bench on 4 sides (mitred)



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staple, to allow the residents to make their storage box secure. When closed the lid of the storage boxes can be used as an informal bench or table top. The storage boxes can be manufactured to match the planters, the storage boxes can be manufactured in FSC®-certified treated redwood or FSC®-certified hardwood.

GRENADIER planter

WATERING SYSTEMS

Watering System 1 - Street Design reservoir system

The Street Design watering accessory is a reservoir system with hydroleca sacks, that maximises the available water.

The system ensures the optimum use of the water and nutrients, delivering the maximum quantity directly to the roots of the plants, resulting in improved root development and optimal plant growth.

General

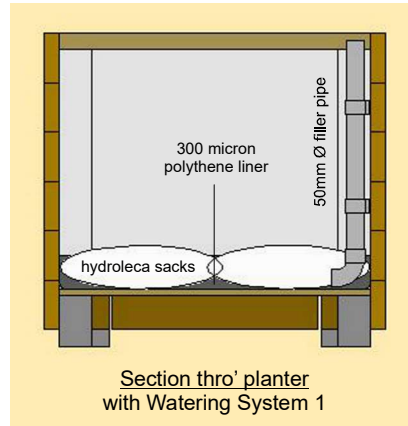
The system consists of a 300 micron thick black polythene liner, hydroleca (pulverised ash granules) sacks and a rigid plastic filler pipe.

The system delivers water directly to the roots via 50mm diameter, rigid plastic pipe, eliminating water wastage. This encourages deep root growth, improving long term drought resistance. The high level filler pipe provides an easy access point for watering and soluble fertiliser application.

Installation

Planters are supplied with the Water System 1 already installed.

Ensure the hydroleca sacks are in the correct position. They will move during transportation. Check that all the plastic pipe connections are properly fitted. The planter is ready for drainage material, filling and planting.



Polythene liner with filler pipe



Hydroleca sacks laid out in base of planter

Watering System 2 - Mona tank and pipe capillary system

Mona watering system

Factory fitted into planter / tree container

The Mona Plant System (MPS) is an advanced, well proven and easy to use subterranean irrigation system. It is the cost effective and environmentally friendly solution for both interior and exterior landscaping.

The Mona Plant System ensures that the water and nutrients are delivered in the right quantity to the root of the plants, resulting in improved root development and optimal plant growth.

General

The system consists of storage tanks, flexible linking pipes and a flexible filler pipe with filler pipe cap. The system delivers water directly to the roots via capillary action, eliminating water wastage. This encourages deep root growth, improving long term drought resistance. The cap and lid provides an easy access point for watering and soluble fertiliser application.

Factory installation

All necessary water tanks, pipes, end caps and air pipes with level indicator, are factory fitted into the planters / tree containers, prior to delivery.

Filling planters

Ensure that the distance between the top of the link tank and the lowest part of the root does not exceed 150mm.

For full details visit: www.green-tech.co.uk



Water storage tanks and filler pipe



Planter ready for soil and planting



Completed planter

GRENADIER planter

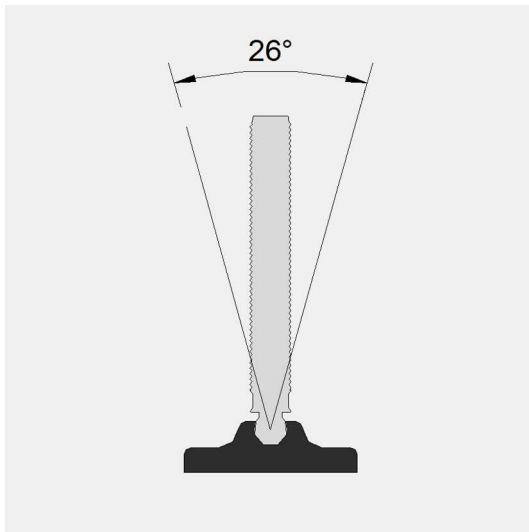
ADJUSTABLE FEET

General details

As an extra cost option, Street Design planters can be supplied with adjustable feet. They allow the planter to be levelled, before filling and planting.

Adjustable feet are particularly useful if the planters are likely to be relocated to a new position.

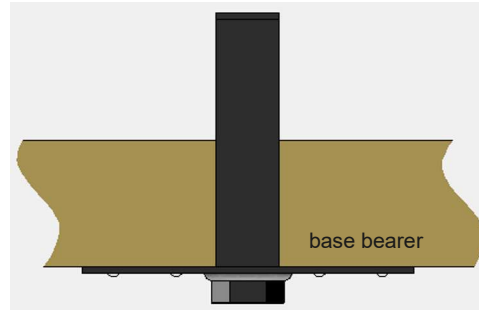
The adjustable foot screw fits into a hex nut, located on the underside of the planter base.



Specification

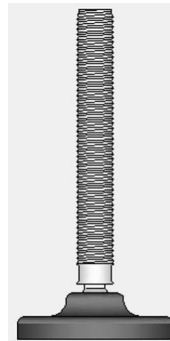
The adjustable foot comprises of a M30 Ø threaded bar, with spherical end section, press fitted into a black reinforced polyamide base. The swivel base can tilt through 360° to accommodate sloping ground levels. The threaded bar is BZP (bright zinc plated) treated.

adjustable foot housing



M30 hex full nut

Adjustable Foot Mounting Plate



Adjustable Foot

Fitting and adjustment

The M30 adjustable foot with swivel base, is screwed into adjustable foot mounting plate. The mild steel mounting plate with adjustable foot housing, is fixed to the underside of the planter base. A M30 hex full nut is welded to the underside of the mounting plate. The adjustable foot is adjusted with a 26mm wrench.



M30 adjustable foot with swivel base. The base diameter is 122mm.

Swivel base

The swivel base can adjust to allow for sloping ground with a fall of up to 1 in 2.06 (26°).



Bolt down base

For extra security, it is possible to drill and bolt through the base of the adjustable feet.



GRENADIER planter

MATERIAL SPECIFICATION

Standard planter

Posts

FSC®-certified 95x95mm FIN PAR pressure treated European redwood.

Base bearers

FSC®-certified 100x47mm section pressure treated European redwood.

Wall slats

FSC®-certified 145x45mm FIN PAR pressure treated European redwood or FSC®-certified 145x45mm FIN PAR hardwood.

Corner fillets

FSC®-certified 45x45mm FIN PAR pressure treated European redwood or FSC®-certified hardwood.

Base floor

18mm FSC®-certified hardwood faced plywood.

Internal lining

GeO-textile membrane.

Fixing bolts

M12x160mm coach bolts with a BZP finish.

Joist hangers

LUS/230/50 U sheer light nailing hangers with a BZP finish.

Optional planter accessories

Adjustable feet

M30 adjustable feet with swivel base. See Adjustable Foot page for full details.

Tree anchors

25x5mm mild steel flat tree anchor brackets, hot dip galvanised.

Watering system

Choose either the Street Design reservoir system or the Mona tank system. See Watering System page for full details.

Planter benches

Timber bench slats to match planter material in either FSC®-certified treated European redwood or FSC®-certified hardwood, bolted to hot dip galvanised mild steel bench brackets.

Optional planter accessories continued

Moveable planters

Grenadier planters can be manufactured with an internal mild steel frame and are suitable for moving.

Pergola structures

Pergola structures can be manufactured as an integral part of the planter construction. The steel uprights can be extended to carry the upper horizontal 145x45mm section timber bearers and cross bearers.

Trellis panels

Trellis panels can be manufactured as an integral part of the planter construction. The steel uprights can be extended to carry the horizontal and vertical trellis timber slats.

Guarantee

All planters are guaranteed for 15 years. This guarantee is dependant on the product not being misused or abused.

Product prices

Contact our Sales Office on 01509 815335 for Grenadier planter prices delivered to site.



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Construction

All Street Design products are designed and manufactured using quality, durable materials and construction details to provide a long-lasting, durable product.

Assembly

Grenadier planters up to 2.8 x 2.8m will be delivered to site fully assembled for off loading and positioning on site. Planters larger than 2.8m will be supplied in sections for bolting together on site.

Timber policy

All pressure treated softwood products are manufactured using materials obtained from growers who operate under the Forest Stewardship Council (FSC®).

All hardwood products are manufactured using materials obtained from growers who operate under the Forest Stewardship Council (FSC®).

Materials

Hardwood products are constructed using FSC®-certified hardwood, from sustainable sources. Softwood products are constructed using FSC®-certified European redwood that has been pressure treated, for a desired service life of 15 years-in-ground contact.

All mild steel fabricated components will be hot dip galvanised after fabrication to BS EN ISO 1461:2009.

All stainless steel fabricated components will be grade 304. Grade 316 can be specified if the location or project requires it.

All mild steel fixings will be bright zinc plated (BZP) and all stainless steel fixings will be A2 (grade 304). A4 (grade 316) can be specified if the location or project requires it.

Planters will be fitted with a geo-textile filter fabric lining, which allows the water to drain through the planter, while retaining the fill material.

Finishes

FSC®-certified pressure treated redwood and FSC®-certified hardwood will be left natural to reduce the need for re-staining and help reduce maintenance costs.

Optional stained finish is available on request.

Mild steel components will be left with a galvanised finish only. If required, after hot dip galvanising, the mild steel components can be polyester powder coated, to the colour of your choice. The galvanised parts are prepped, treated and sprayed with the polyester powder, before being baked in an oven.

Stainless steel components will have a dull polished (brushed finish). If required, the stainless steel components can be supplied with a mirror polished or bead blasted finish.

GRENADIER planter

CARE & MAINTENANCE

General

All Grenadier planter products are manufactured using quality materials, treatments and finishes. The timber components are manufactured from either FSC®-certified pressure treated redwood or FSC®-certified hardwood.

All products require a varied amount of maintenance, depending on the environment, usage and weather conditions. Natural timber will only require cleaning. In time, stained timber will require re-coating.

Maintaining the standard FSC®-certified treated redwood finish

Natural finish treated redwood can be washed down with a mild detergent. More stubborn surface marks can be removed with a light, hand sand with a 120 grit, or higher grade sandpaper. Excessive sanding should be avoided.



Maintaining the optional FSC®-certified treated redwood finish

Stained, treated redwood will need to be re-coated after a period of time. The stain can either start to fade, become dull (oxidised) or incur some surface break up. Lightly sand down the timber using a 120 grit, or higher grade sandpaper. We recommend that the timber is re-stained with the original stain colour and manufacturer. Details can be obtained from Street design Limited. Apply the stain evenly, with brush strokes running parallel with the woodgrain, in thin layers, building up the finish as recommended by the stain manufacturer.



Maintaining the standard FSC®-certified hardwood finish

Natural finish hardwood can be washed down with a mild detergent. More stubborn surface marks can be removed with a light, hand sand with a 120 grit, or higher grade sandpaper. Excessive sanding should be avoided.



Maintaining the optional FSC®-certified hardwood finish

Stained hardwood will need to be re-coated after a period of time. The stain can either start to fade, become dull (oxidised) or incur some surface break up. Lightly sand down the timber using a 120 grit, or higher grade sandpaper. We recommend that the timber is re-stained with the original stain colour and manufacturer. Details can be obtained from Street design Limited. Apply the stain evenly, with brush strokes running parallel with the woodgrain, in thin layers, building up the finish as recommended by the stain manufacturer.



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