www.broxap.com

broxap®
street furniture
design · manufacture · installation

Operation & Maintenance Manual

Planters

Issue 6

info@broxap.com
01782 564411

18/01/2023

Contents

Introduction 03

Health & Safety Information 04

Materials & Processes 05

Cleaning, Maintenance & Repair Guidelines 06

Introduction

Broxap planters have been supplied to designs that have been proven over years of development and installation.

Planters can be supplied in a number of different base materials, to suit every situation and environment.

To aid in ensuring the maximum life can be realised with the product, along with minimising the costs for major refurbishment, this manual has been created to assist in the ongoing maintenance requirements along with identifying important points that should be followed at all times.

Broxap are ISO9001 (Quality), ISO14001 (Environmental) and OHSAS18001 (Health and Safety) certified through the BSI. These 3 standards have been utilised during the design, manufacture, processing and delivery of the product. Our commitment to providing a service of quality that takes into consideration the effects of the environment during its manufacture and life plus the health and safety of the Customers has been fully considered.Other standards that have also been considered during product design and manufacture are:

- BS EN ISO 1461:2009 (Hot Dip Galvanized Coatings on Fabricated Iron & Steel Articles)
- BS EN ISO 13920:1997 (Welding Tolerances Shapes, Dimensions and Lengths)
- BS EN 206-1:2000 (Concrete. Specification, performance, production and conformity)

Timber planters can be supplied in a range of hard & softwoods.
FSC timber can be supplied with full Chain of Custody. This ensures that it originates from legal and sustainable sources.

Broxap's FSC Certificate registration code: SA-COC-004482.

To ensure that timber does not sweat and become discoloured, all wrapping must be removed within 72 hours of delivery.

Health & Safety Information

Broxap planters have no specific operating instructions once they have been installed. However, there is a need for certain Health and Safety notes to be considered at all times during their use and ongoing maintenance.
These being:

- Product that is manufactured from cast iron, ductile iron or concrete will be a significant weight (the Broxap website / catalogues give an indication of the weight of each product). Therefore the movement of such must not be undertaken by a single person. When reasonably practical, mechanical handling devices should be used for all products heavier than 20kg. Safety footwear should also be worn.

- When routine maintenance is being undertaken there is a requirement for the customer to observe the required Health & Safety information for the materials/products being used. Broxap identify that:- It is the Customer's responsibility to ensure that full care, responsibility, correct operation / use, and training are adhered to at all times.

- Broxap cannot accept any responsibility for any damage or injury to persons or property as a result of not working in a safe and proper manner.

In terms of Health & Safety, the main factor to consider is Manual Handling. When lifting a planter the back should be kept straight and knees bent.

When handling concrete planters, protective gloves should be worn at all times. This is to prevent abrasions and also to prevent skin contact with concrete dust. Concrete dust may cause skin irritation. If hands come into contact with concrete dust they should be washed with soap and water immediately.

Materials & Processes

As the product is designed to utilise various customer requirements, the following is a list of materials and processes that could have been used during its processing:

Materials

- Pre-galvanized mild steel sheet / Zintec
- Stainless Steel – Grade 304 or 316
- Cast Iron
- Ductile Iron
- Wood – various hardwood & softwoods, including FSC Certified
- Concrete
- Granite

Processes

- Bending, forming, fabrication and welding.
- Laser cutting / punching of sheet metal
- Casting (Iron & concrete)
- Zinc galvanizing / Zintec coating
- Polishing of stainless steel
- Wet painting
- Polyester Powder Coating
- Machining / Staining of wood

Cleaning, Maintenance & Repair

This section gives a generic overview of the inspection and cleaning regimes, solutions, methods and techniques which will preserve the aesthetic finish of the planters.

Inspection & Cleaning

To maximise life expectancy the products should be visually inspected on a regular basis for any signs of damage, vandalism, breakdown of surface finish, and build-up of salt, dirt or atmospheric residue.

During these inspections, should any concerns be noted, then the Customer's attention is brought to the following pages whereby suitable maintenance and repair methods are described for the various materials used.

In the event of serious damage to any main component then Broxap should be contacted immediately for detailed technical advice.

In addition to the visual inspection, a regular cleaning regime is also required.

The required frequency of visual inspection and cleaning will be dependent on the environment in which the product is situated:

- In rural and urban environments (C1 – C3) the products should be visually inspected monthly, and cleaned every 3 months.
- In harsh industrial or coastal environments (C4, C5-I, C5-M), where the products may come into contact with concentrated atmospheric pollutants (chemical, marine), the visual inspection frequency should be increased to weekly, and the cleaning frequency increased to monthly (or as required).

Note – this document is not designed to be exhaustive and extensive in the exacting requirements of every case. If you consider your cleaning or repair circumstances to be outside of the scope of this document, then please contact Broxap and we will be happy to help you keep our products looking as new.

All cleaning and maintenance should be recorded, detailing the method of cleaning, what products have been used, and what repair work has been undertaken.

In the case of a warranty claim against Broxap, this information will be requested.

Powder Coating

As the name suggests, this process involves the application of a polyester powder onto the substrate (pre-galvanized sheet / zintec), using an electrostatic gun. This is then oven cured to create the hard wearing outer layer that can be seen on the finished product.

Powder coating can last many years, but its life expectancy depends on a variety of factors, including site location, atmospheric conditions and cleaning regime. The recommended cleaning frequency is detailed at the start of this section.

The cleaning of powder coated surfaces should be undertaken using either:

1. Warm mild soapy water and soft brush, sponge or natural bristle brush. Rinsed with clean water.
2. A proprietary car wash and wax system. Rinsed with clean water.

At no time during the cleaning process is it advisable for any abrasive cleaners, solvents, or other chemicals, to be used:

To enhance the appearance of the powder coating, an annual treatment with car wax would be acceptable, but not considered mandatory.

Where Graffiti is present, then it is recommended that no solvent cleaners are used in an attempt to remove it. The method of removal should be with the use of either a car 'T-Cutting' compound or through a specialist cleaner. This should be tested on a small, inconspicuous area first to assess its efficiency.

Where small repairs to the powder coat surface are required, then the following should be adhered to as a minimum:

- For light scratches / chips where the base metal is exposed then a suitable zinc-rich primer should be carefully applied to the defect, followed by a topcoat finish of a matching acrylic based paint or touch up (obtained from Broxap).
- Where scratches / chips have only exposed the substrate surface, then the above must be followed with the exception of the Zinc Rich primer being applied.

For larger areas of damage, vandalism or coating breakdown, then Broxap should be contacted for technical advice.

Wet Painting

As the name suggests, this process involves the application of a wet paint onto the base substrate (Cast iron / Ductile iron). This then cures to create the hard wearing outer layer that the customer will see.

Wet paint can last many years, but its life expectancy depends on a variety of factors, including site location, atmospheric conditions and cleaning regime. The recommended cleaning frequency is detailed at the start of this section.

The cleaning of wet painted surfaces should be undertaken using either:

1. Warm mild soapy water and soft brush, sponge or natural bristle brush. Rinsed with clean water.
2. A proprietary car wash and wax system. Rinsed with clean water.
3. A low pressure water wash eg hosepipe.

At no time during the cleaning process is it advisable for any abrasive cleaners, solvents, or other chemicals, to be used.

Where small repairs to the painted surface are required, then the following should be adhered to as a minimum:

- For light scratches / chips where the base material is exposed then a suitable should be carefully applied to the defect, followed by a topcoat finish of a matching acrylic based paint or touch up (obtained from Broxap).
- If required, the damaged area can be filled to bring it back up to the same level as the remaining painted surface. A proprietary car filler system would be suitable for this operation and can easily be sanded back to the finish and level needed.
- For larger areas of damage or vandalism, the areas should be sanded by the minimum amount to feather in the broken edges. As per the above, the area can be filled if required and a primer and then topcoateither brushed or sprayed onto the area.

Information relating to the original paint system can be obtained by contacting Broxap.

Standard specification paint will be a HMG system, whereas Waterside/Marine specification paint will be a Sherwin Williams system.

Stainless Steel

Stainless steels are selected in applications where their inherent corrosion resistance, strength and aesthetic appeal are required.

Surface contamination and the formation of deposits must be prevented. These deposits may be minute particles of iron or rust from other sources and not removed until after the stainless steel items have been installed. Industrial and even naturally occurring atmospheric conditions can cause deposits that can be equally as corrosive.

A working environment which offers more aggressive conditions, eg hot and humid, such as swimming pools, increases the speed of discolouration and therefore requires maintenance on a more frequent basis.

All grades and finishes of stainless steel may in fact stain, discolour or attain an adhering layer of grime in normal service. To achieve maximum corrosion resistance the surface of the stainless steel must be kept clean. Providing the correct grade is specified, any contamination from handling, manufacturing and installation is removed, and cleaning schedules are carried out regularly, good performance and long life will be achieved.

The two grades of stainless steel used in Broxap products are grade 316 & grade 304:

- **Grade 316 (1.4401)** - has a greater chromium and nickel content than grade 304, and includes molybdenum. This increases its corrosion resistance properties and makes it less susceptible to surface pitting and staining. It is therefore suited to all external areas, especially marine locations where there is a high level of sodium chloride in the air.

- **Grade 304 (1.4301)** – is more suited to rural and urban locations where there is less risk of sodium chloride contamination.

Advice is often sought concerning the frequency of cleaning stainless steel and the answer is quite simple: “clean the metal when it is dirty in order to restore its original appearance”. This may vary from one to four times a year for external applications.

Recommended maintenance schedules for the two grades differ slightly due to the differences in the chemical make-up.

The table below shows the recommended cleaning frequencies for the two grades in each type of atmosphere:

Location	Grade 304 (1.4301)	Grade 316 (1.4401)
Internal	As required to maintain appearance	
Suburban or Rural	6-12 month intervals (as appropriate to location & design)	
Industrial or Urban	3-6 month intervals	6-12 month intervals
Costal or Marine	Not recommended	3-6 month intervals

Stainless steel is easy to clean. Washing with soap or a mild detergent and water, followed by a clear water rinse, is usually quite adequate for domestic and architectural products. An enhanced aesthetic appearance will be achieved if the cleaned surface is wiped dry.

On brushed (satin) finishes, nylon abrasive blocks may be used to remove minor surface imperfections, ground in dirt and scratches. These blocks are flexible and are impregnated with grit. Note – they must always be used in the same direction as the original polishing marks.

Where stainless steel has become extremely dirty, with signs of surface discolouration, (perhaps following a period of neglect or misuse) alternative methods of cleaning will be required. These are detailed in the table below:

Problem	Cleaning Agent	Comments
Routine Cleaning	Soap or mild detergent (eg. Fairy Liquid) and water	Sponge, rinse with clean water; wipe dry if necessary
Fingerprints	Soap or warm water or organic solvent (eg. Acetone, Alcohol)	Rinse with clean water; wipe dry if necessary
Stubborn Stains/Discolouration	Mild non-abrasive cleaning solutions or creams (eg. Jif, Cif)	Rinse well with clean water and wipe dry
Oil/Grease Marks	Organic solvents (eg. Acetone, Alcohol)	Clean afterwards with soap and water and wipe dry
Localised Rust	Proprietary gels, 10% Phosphoric Acid or Oxalic Acid solution. Apply with a swab and allow to stand for 15 minutes before being washed away with water. May continue using Jif to give final clean	Rinse well with clean water. For Phosphoric Acid rinse first with Ammonia solution. (precautions for acid cleaners should be observed)
Motar/Cement Splashes	10% Phosphoric Acid solution. Use warm.	Rinse first with Ammonia solution, then clean water and wipe dry.
Badly neglected surfaces with accumulated deposits	A fine, abrasive paste as used for car body refinishing (eg. T-cut)	May brighten dull finishes. To avoid a patchy appearance, the whole surface may need to be treated
Paint/Graffiti	Alkaline or solvent paint stripper according to type of paint	Use soft nylon or bristle brush. Follow manufacturer's instructions.

The products referenced in the table are understood to be suitable for stainless steels. However, no endorsement of the products or their manufacturers is implied and it is acknowledged that other manufacturing companies may provide products of equal or better quality.

If the cleaning methods detailed in this information sheet prove unsuccessful, it is worth bearing in mind that stainless steel can be passivated or mechanically polished by specialists on site.

More detailed information regarding life expectancy of Stainless Steel or how the surface will perform along with suitable cleaning regimes can be obtained by visiting:

http://www.bssa.org.uk/technical_information.php

Timber

Timber planters are usually supplied in Iroko (a Tropical hardwood), but can also be supplied in softwood. All our timber products receive a woodstain treatment during manufacture.

Some basic maintenance will be required to get the maximum life from it and preserve its appearance.

1. A visual check should be completed annually, whereby any splinters or sharp edges of wood are lightly sanded to remove them.

2. The wood should be coated with a proprietary wood stain system on an annual basis so as to preserve its appearance and longevity. Broxap recommend the use of Sikkens Cetol for Iroko.

3. If a planter starts to deteriorate and its aesthetic value cannot be maintained then it should be changed for a like for like replacement. Where a replacement is made, then there will be a shading difference against any existing wood that remains, this is due to the weathering effect of wood in service.

Due to the natural properties of timber, it has the tendency to move, surface check or split. This is a feature of timber products and does not look out of place in the informal environments in which these products are used.

Broxap cannot be held responsible for this natural movement, as it is out of our control.

Further information about timber, and its properties, can be found by visiting:

www.trada.co.uk

Concrete & Granite

Pre-cast concrete and granite products require little or no maintenance. Products may become soiled, which is normal over time. Should the product become excessively soiled, it can be cleaned with a scrubbing or sweeping brush, using a mild detergent and water solution. After cleaning the product should be thoroughly rinsed with clean running water.

NOTE – before cleaning, thoroughly drench surrounding masonry and concrete to prevent the dirty wash water being absorbed into it.

Additional information

Additional information on maintenance can be found on the Broxap website:

https://www.broxap.com/operations-maintenance