

Operation and maintenance manual for ECY Products

ECY Armco barriers are a robust visual deterrents and help to guide traffic away from impacts and pedestrians. They come galvanised as standard with an option of powder coating (please refer to page two for more information).

There are no certified fitting standards for off highway road barrier (except multi storey car parks—BS EN 1991-1) although here is an inspection check list to maximise the life expectancy of the product.

We also install handrail, bollards, palisade fencing and paladin (mesh fencing) & Gates.

Bollards can also be made out of stainless steel (see page two for more information).

Products should be visually inspected on a regular basis for any signs of

- Damage
- Vandalism
- Breakdown of the surface finish
- Build-up of salt, dirt or atmospheric residue,
- Loose fixings
- Wobbling effect / movement when pushed by a individual
- Cracks and crumbling on concrete around the base of the posts



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

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 the products should be visually inspected monthly, and cleaned every 3 months.
- In harsh industrial or coastal environments 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 ECY 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 ECY this information will be requested.

Galvanised Coating information and maintenance

The galvanising used on our products have been processed in accordance with the requirements specified in BS EN ISO 1461:2009.

Galvanising is a hot dip chemical reaction of molten zinc onto steel substrate.

At the time of the process taking place the appearance will be one of the shiny silver, however, this will not last and over a period of several weeks this will dull off to a grey colour. This is the natural finish of the galvanised surface.

Note—Due to the nature of the galvanising process some surface irregularities may occur on the surface of finished products. Although these will be finished flat, where possible, this will not be undertaken where it may breach the zinc coating. Some visual irregularities may therefore be present on galvanised products, including those with polyester powder coating—these do not compromise the durability and performance of either the product or the coatings in any way.

The cleaning of any exposed galvanised surfaces should be undertaken using:

1. A low pressure water wash e.g. hose pipe.
2. A soft brush, with warm soapy water, to remove any surface dirt.

Scourers, wire brushes and abrasive cleaners must not be used during cleaning as they may compromise the protective surface and result in premature rusting.

After cleaning ensure the product is rinsed thoroughly.

Galvanising has the ability to “self-heal” any minor knocks or scratches.

However, there will be occasions whereby the coating has been damaged to base steel, a check should be made to establish if rusting has occurred. Based on this there are several repair paints on the market. In our experience, we have found two that give a satisfactory repair and finish for ongoing use. The two methods are either Galvafruid or Zinga with both being available in either a paste / brush application or an aerosol spray (please ask the supply only team if you require any).

Where rusting is present, then the area should be wire brushed / sanded to bring back to a bright steel surface.

The system used for repair will state the required precautions that should be taken along with the application method, however, a build up of coating should be such that the thickness will be capable of giving ongoing protection as required. The coating thickness on renovated areas should be at least 100 microns.

Polyester powder coating maintenance

Pressure Cleaning. Pressure washing is likely the most efficient method of cleaning coated surfaces to remove dirt and grime. The pressure washer should be used on a low-pressure setting with filtered water. Don't use unfiltered tap water or groundwater.

If you use unfiltered groundwater for cleaning, it can leave stains on the metal surface. If the water contains fluoride, sulphur, iron oxide or chlorine, they can stain outdoor products.

Low pressure should be used for pressure-cleaning powder coated surfaces. If the pressure is strong enough to cause the metal surface to shift its position, it may also be strong enough to damage the finish.

Use a Mild Soap and Water. All powder coated products should be cleaned with either a soft cloth or a brush, using a solution of mild soap and warm water. The best type of soap to use for this purpose is one that has emulsifiers that can break down the most common types of stains.

Exposed surfaces of powder coated products that are deemed the most critical should be cleaned regularly (on either a weekly or a bi-weekly schedule). These can be wiped down and rinsed with filtered water.



Stainless steel information and maintenance

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

Two grades of stainless steel used in ECY products are 316 and 304.

Grade 316 has a greater chromium and nickel content than the 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 is more suited to rural and urban locations where there is less risk of sodium chloride contamination.

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 is removed, and cleaning schedules are carried out regularly, good performance and long life will be achieved.

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.

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.

Please see our table below for more in depth solutions to cleaning problems.

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)
Mortar/Cement splashes	10% Phosphoric Acid solution. Use warm.	Rinse first with Ammonia solution, then clean water and wipe dry.
Badly neglected surfaces with accumulated grime 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.

