

### **3 Simple Steps For Optimal Cleaning And Protection Of Stainless Steel Against External Influences!**

The most common idea on stainless steel is that it can not corrode. Unfortunately this is not true. Stainless steel has a protective layer of chromium oxide, which prevents corrosion. This protective layer has self repairing properties, but when the damage is too large the protection wears off and even stainless steel is corrodible. Causes of corrosion can be contact with chlorides (at sea fronts) or foreign particles (carbon steel particles) (near train stations, railways).

Corrosion of stainless steel can be prevented and treated by the correct maintenance of the surface using Pro-Railing Enviroshield, a user-friendly maintenance kit for cleaning and protection. This kit consists of three products: a strong cleaner, which even removes mild corrosion from a stainless steel surface, demineralised water (demiwater) and a protection spray which prevents corrosion of the metal surface when exposed to a corrosive environment. When used frequently, the stainless steel surface will maintain its unique and original appearance.

#### **Pro-Railing® Enviroshield**



This maintenance kit is especially suitable for maintenance of aesthetic stainless steel objects; the Pro-Railing Protect spray provides protection and a natural shine.

In case there are corrosion issues with constructive applied stainless steel objects, we advise to contact F H Brundle or another metal surface treatment specialist.

#### **Stainless Steel Cleaner In Combination With Pro-Railing Protect Can Be Used For:**

- Stainless steel sheets on buildings for example on doors or frontage.
- Street furniture like benches or waste bins.
- Public constructions like banisters on bridges or fencing.

#### **The Principle Of Stainless Steel**

As briefly mentioned in the introduction, stainless steel owes its stainless properties to an alloy consisting out of a minimum of 12% chromium. The present chromium binds itself with oxygen at the surface of stainless steel to form a chromium oxide layer of a few microns. Stainless steel comes in many qualities, adding molybdenum, titanium and other ingredients to the alloy brings the stainless properties to a much higher level.

In a normal environment the chromium oxide layer is more than enough to keep stainless steel corrosion free. However, the surface should be cleaned on a regular basis to prevent contamination to build up and damage the chromium oxide layer. As soon as chlorides or foreign steel particles attach in too large quantities to the surface, the chromium oxide layer is no longer strong enough to keep up the stainless properties. In these cases the surface will start to show brown stains (tea stains).

Pro-Railing Enviroshield kit contains stainless steel cleaner R2U that is able to remove this kind of staining and restore the surface to its original state

**Maintenance Kit For Stainless Steel Constructions:**

**Pro-Railing Stainless Steel Cleaner**



Pro-Railing Stainless Steel Cleaner is an after treatment for stainless steel, composed of mineral acids and specially selected additives. The handy spray makes the product easy to use.

**APPLICATION**

Pro-Railing Stainless Steel Cleaner is especially suitable for removal of contaminations like mild corrosion, ink and pollution from environment. Caution: avoid contact with natural stone.

**Pro-Railing Protect**



Pro-Railing Protect is a protection product for stainless steel. The unique composition of the product helps to keep the protective chromium oxide layer on stainless steel intact. Frequent treatment with Pro-Railing Protect helps to keep stainless steel surfaces free from corrosion and shiny.

**APPLICATION**

Apply Pro-Railing Protect with a clean cloth on the surfaces that you want to treat. (The surfaces should be dry) Polish the Pro-Railing protect until an equal thin film settles on the surface.

**Cleaning And Durable Protection Of Stainless Steel In 3 Steps**

How to use Pro-Railing Enviroshield with the first treatment of stainless steel surfaces or in case of heavily contaminated objects:

- (1)** Spray Pro-Railing Stainless Steel Cleaner on the surface and let the cleaner work for 10 to 20 minutes (depending on the degree of contamination).
- (2)** Remove the cleaner with warm demi-water under pressure. When indoors, wiping the surface with a damp cloth after rinsing the cleaner off with (warm) demi-water is also sufficient. Be sure to use a cloth with demi-water, demi-water is necessary because tap water contains minerals which can cause corrosion. Let the surface dry to the air.
- (3)** Spray the Pro-Railing Protect on the clean and dry surface. Polish the Pro-Railing protect until an equal thin film has settled on the surface. After this step the chromium oxide layer on the stainless steel is protected from environmental influences that cause corrosion.

How to use Pro-Railing Enviroshield when used frequently:

When there is no heavy contamination on the stainless steel surface, only treatment with Pro-Railing Protect is required for maintenance.

**Read the Product Safety Sheets before using any of the products.**