

# M&P's Horogrene<sup>TM</sup>.com

## The Horological Green Cleaner

M&P's  
3-Stage cleaning  
system



- ✓ **No strong fumes**
- ✓ **No toxic chemicals**
- ✓ **Environmentally friendly**
- ✓ **Water soluble**
- ✓ **Quick and easy to use**
- ✓ **Kind to brass**

### 3-Stage cleaning system

Kit contains

Degreasing concentrate

Lacquer remover

Surface cleaning concentrate

Plastic gloves

Full instructions



Using only non-toxic, non-flammable and non-ammoniated liquids, M&P's Horogrene<sup>TM</sup> Clock Cleaning Kit can be used safely in the home-workshop, in classrooms and public places etc. without creating unpleasant smells, fire hazards or toxic vapours.

For decades strong mixtures of solutions containing Ammonia, flammable solvents and toxic chemicals have been used to clean clocks. Whilst effective, their toxic nature and pungent smells have become less appropriate in the home and workplace. Transporting hazardous fluids has become problematic, and inappropriate disposal of chemicals can affect the environment.

*Please bear in mind that the purpose of the products in Horogrene<sup>TM</sup> is to strip off dirt, varnish and tarnish, and although they are not harmful, they will also remove natural oils from your skin. Avoid contact with skin whenever possible and wash your hands with soapy water at every opportunity. Consider the use of moisturizing creams after use.*

*Use common sense. Keep out of reach of children and pets, and avoid contact with the eyes by splashing. None of the products is harmful to the environment and can all be disposed of down the drain in kit quantities.*

### How Horogrene<sup>TM</sup> works

A typical clock in need of restoration normally suffers from three distinct problems:

- The mechanism will have congealed oil mixed with dust and dirt over much of the surface
- Some parts may have been lacquered
- Parts not still lacquered will be tarnished

Horogrene<sup>TM</sup> is a 3-stage process, with each stage designed to resolve one of these problems. It is important to follow the instructions carefully and to carry out the stages in the correct order.

The amount of product to add to water is only a guide. For badly soiled parts, make the solution stronger, but not normally more than 15% concentrate. Excessively strong mixtures will not normally improve results.

## **Stage 1 Degreasing the parts**

Add 2-3 teaspoons (10-15ml) of degreasing concentrate to 1 litre of hot (not boiling) water and mix thoroughly. Immerse the parts fully in the mixture, agitating frequently. Brushing or use of ultrasonics will speed up the process and improve the results. When clean, rinse in warm water and dry the items with a paper towel or hot air. Very heavily soiled parts might need a repeat treatment.

It is important to dry the parts reasonably well, to help the product in stage 2 to dissolve the lacquer.

## **Stage 2 Removing old lacquer.**

Various different lacquers have been applied to clocks over the years, and some will loosen more easily than others. Some modern lacquers may need a repeat application.

Brush the stripper onto the parts to be cleaned with a small brush, ensuring that everywhere has been coated. Small parts can be completely immersed if convenient. Every few minutes use the brush to loosen the softened lacquer. After 10 minutes or when clean, wash the items in mild soapy water and rinse thoroughly. There is no need to dry the parts before stage 3, provided you do not leave them to rust.

## **Stage 3 Deep cleaning**

Add 2-3 teaspoons (10-15ml) of cleaning concentrate to 1 litre of hot (60°C) water and mix thoroughly. Immerse the parts in the mixture, agitating frequently. Brushing or use of ultrasonics will speed up the process and improve the results. The time taken to clean will depend on the temperature of the water and the amount of contamination. At least 10 minutes will normally be needed. If your parts contain steel, remember that if you leave them in water for excessive lengths of time, they will probably rust. When clean, rinse in warm soapy water and dry the items thoroughly with paper or hot air.

The parts will now be ready for polishing with brass polish

## **Ultrasonic Cleaners**

Ultrasonic cleaning machines used to be beyond the means of most amateur repairers, but now that their use has spread to cleaning spectacles, jewellery and dentures etc., they are much more affordable. They clean by agitating the liquid so fast that dirt has to 'let go' of the surface, resulting in contamination being drawn out of small holes, between gear teeth etc. Stage 1 and 3 will benefit greatly from ultrasonic action. If you do not have an ultrasonic cleaner, use a small brush or agitate the parts in the liquid frequently



*Typical small ultrasonic tank  
0713 000215*

## **Mesh Parts Baskets**

It is vital not to lose any small parts in the cleaning process, and a small watchmaker's mesh basket is highly recommended. Not only will it hold all the small parts safely, it can be raised and lowered rapidly in the solution, causing improved cleaning.

## **Cleaning brushes**

Whether it be an old toothbrush or a sophisticated clockmakers brush, use it frequently to dislodge contamination. It will speed up the process and improve the results.

## **N.B.**

No liquid cleaners can bring a shine to brass that was not shiny underneath the contamination. If the surface is dull, blotchy or pitted, it will need polishing with a mild abrasive polish after cleaning.

If the clock to be cleaned is lacquered and you prefer not to remove the lacquer, simply skip stage 2.

For those who prefer an ammoniated cleaner, add a dash of ammonia (1306 012515) to the mixture in stage 3. Remember that many horologists avoid ammonia due to its harsh effects on brass, and that all the hazard warnings on the ammonia will apply to the cleaning solution.



*Mesh basket for  
cleaning small parts  
1492 000115*