

## 005 CLEANING GLIDERS

**Aim:** To learn how to clean a glider in preparation for flight.

The cleaning of gliders usually takes place as part of the morning ritual of getting the club operations set up. Excessively dirty gliders should be cleaned before they are put away. Once the gliders are taken out of the hangar or rigged, they are cleaned. There are several reasons for cleaning gliders before flying them; they include:

- A clean glider flies better; any dirt on the glider's surface disrupts the smooth flow of air and creates drag which means the glider comes down quicker.
- Dirt in the cockpit can "fly up" in turbulence and get in your eyes.
- Dirt etc. on the surface of the glider can discolour the surface; it may corrode and / or weaken the surface.
- Dirt / mud / grass can cake and jam wheel and brake assemblies.

You will need the following:

- A clear area so you can freely get around the entire glider.
- A bucket of clean water, a sponge, and a chamois leather cloth.
- A suitable cleaning solution like Pledge for the canopy.
- A vacuum cleaner with a narrow nozzle attachment.

### Cleaning the interior

Vacuuming the glider's cockpit can be achieved while it is still in the hangar provided ready access is available and the lighting is suitable for the task. This can avoid the need for long power extension leads and gets the job done before there is any water around the place. A narrow nozzle tip will provide the best access to narrow spaces where dirt accumulates. Use a small paint brush to help dislodge dirt etc. Be careful not to perforate or stress any fabric areas. Check that the vacuum cleaner does not bash the outside of the glider and the flexible tube doesn't scratch / rub the side of the cockpit as you move around the interior area. Check any side pockets for rubbish or unnecessary materials and remove. Check down the fuselage for any rubbish or objects that shouldn't be there and remove them.

### Washing

Use a bucket or hose running water to wet the glider and wash off dust or soften dirt. Wet small areas rather than the entire glider at one time. Use a clean sponge or soft cloth to wipe over the surfaces. Avoid getting excess water in gaps like those around the airbrakes and controls. If water does get in these areas, dry it out as at altitude, it may freeze and restrict operation if left there. You may need to carefully scrub around the main wheel area where dirt often accumulates. Use the chamois to dry the glider. We talk about cleaning gliders before they fly; it is equally important that they are cleaned after flying so any dirt and bugs are removed as soon as possible rather than being left to harden and / or stain the surface.

### Cleaning canopies

A clean canopy is essential for allowing the best possible lookout during flight. Canopies are very expensive parts of the glider so particular care must be taken when cleaning them as they can easily be damaged. Use only a clean soft cloth or chamois and running water to remove dust and dirt. Wipe clean and use a suitable cleaner like Pledge to do a final clean of both the inside and outside. Check that you have no rings or similar on your hands / wrists that may come in contact and scratch the canopy inadvertently while cleaning it. If a canopy cover is available; ensure the surface is clean before sliding a cover over the canopy to avoid scratching it.

**Need to Know:** When and how to clean a glider.

**Points Of interest:**

- The gelcoat surface of gliders is semi permeable – that is, water can penetrate through to the fibreglass below. At altitude, water freezes and expands and if trapped under the gelcoat, it will crack and dislodge the gelcoat.
- Bugs / insects splattered on the leading edge can reduce glide performance by up to 10%. Some gliders are fitted with special bug wipers that can run down the leading edge and clean it in flight!