



INDUSTRIAL RAINWATER GUTTER SYSTEMS: INSPECTION AND MAINTENANCE OVERVIEW

Industrial rainwater gutter systems are designed to give many years of reliable service but to achieve this, a regular inspection and maintenance programme must be undertaken and such a programme is often a mandatory requirement of the system guarantees available for industrial gutters. Neglected gutters may lead to premature degradation of the system and as the Metal Gutter Manufacturers Association (MGMA) points out, prevention is always better than cure and a regular maintenance programme is the most effective way of ensuring that serious problems do not arise.

Coated gutters must be inspected at least annually (more frequently if in coastal/heavy industrial areas or near trees) and MGMA recommends that the gutter inspection is carried out at the same time as the roof inspection. Details of the inspection, together with any repair and maintenance work undertaken must be recorded in the product guarantee documentation.

The inspection method will vary depending on the type of system the gutters are connected to; for a gravity drainage system ensure that all pipework is inspected in accordance with BS EN 12056-3:2000 and for siphonic drainage systems check that the system (outlets, tailpipes, horizontal carrier pipes, etc.) is inspected in accordance with BS EN 8490:2007.

Careful clearing

Any build-up of debris, including debris remaining after the roof installation for example, drilling swarf, loose fixings, and rivets should be cleared from the gutters taking care not to scratch or damage the protective surface. The debris should be collected using non-metallic tools, such as soft bristled brushes/brooms and PVC shovels.

Areas of dirt compaction and any other vegetable matter i.e. soil, twigs, weeds, should be carefully removed and contaminated areas hosed down and cleaned with fresh water. In the case of both gravity and siphonic outlets check that the outlets are clear and re-protect welds if necessary. Lastly, check that the fixings are sound and installed to the recommended torque setting; if damaged or in need of replacement, contact MGMA for further advice.

Where repairs are required, ensure that the gutters are clean of debris. In the damaged area, dry the surface and remove any loose coating particles of protective paint by gently scraping. Remove any zinc salts or rust on exposed galvanised surface by abrasive cleaning using a non-metallic media. Brush off all contamination and loose coating particles.

Abrade the galvanising and 50-75 mm of the protective coating around the damaged area to produce a sound, flake free surface. Degrease thoroughly using solvent wipe. Apply product by stiff bristled brush to bring back protective coating to the original 150µms thickness overlapping the prepared area by 50-75 mm to ensure the whole area of treatment is fully covered and re-protected.

Abrasions and scratches penetrating the galvanised protection in areas not protected should be thoroughly cleaned and de-greased using an organic solvent such as paint thinners and the damaged area dried and coated with paint overlapping the damaged area 100 mm all round.

If the white paint coating to the inner gutter lining enamel is scratched or damaged, clean using a non-metallic media. Brush off all contamination and loose coating particles and repair by painting with a good quality gloss paint.

Repair to membrane gutters

For repairs to membrane gutters, supplies of membrane patches can be obtained from the gutter manufacturer. Prior to use, wash the damaged area with water and washing up liquid, rinse off and dry thoroughly before commencing any repair work.

Where the membrane is badly scuffed, torn, ripped or damaged exposing the galvanised metal; heat weld a membrane patch to an area covering plus 50mm all around the damaged section (refer to the manufacturer's installation instructions).

If the white paint coating to the inner gutter lining enamel is scratched or damaged, clean using a non-metallic media and repair by painting with a good quality gloss paint.

Bolt repairs

Where repairs to bolts are required the bolts should be tightened with a torque wrench, starting at the middle of the gutter sole, working outwards to the sides of the gutter; tightening alternative bolts one side of the gutter sole centre to the other, until complete. If any original bolts have been cross threaded or spinning then they should be removed and replaced in accordance with MGMA recommendations.

Membrane joints

To repair a membrane joint where the membrane is badly scuffed, torn, ripped or damaged exposing the galvanised metal, heat weld a membrane patch to an area covering plus 50mm all around the damaged section (refer to the manufacturer's installation instructions).

For problematic joints, the recommended method of joint repair should be sought from the gutter manufacturer. All reparation details should be a mechanical or membrane solution to allow future maintenance of the gutter system.

Inspection and maintenance are mandatory requirements of the system guarantees available for industrial gutters. Neglected gutters may lead to premature degradation of the system and poor maintenance as highlighted in the images below will impact on the drainage of the roof, leading to water entering the building.



Safety on site is paramount; proper risk assessments and method statements should be prepared for each maintenance inspection and working procedure. MGMA recommends that all inspections and any work undertaken on buildings are only carried out by competent persons trained for such a purpose and that adequate and appropriate safe access is provided at all times.

Further advice and guidance is available from any MGMA member company whose details can be found on the MGMA website at www.mgma.co.uk.

*This article was prepared on behalf of MGMA by Simon Mawson of C A Group Limited
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