



PROTECT YOUR BUILDING INVESTMENT



DEFENSE AGAINST WEATHER AND PREMATURE AGEING

Astron buildings are manufactured from high quality materials and are renowned for their long-term durability.

Your building has been designed and fabricated for a low-maintenance service life.

The use of high quality raw materials and high engineering and manufacturing specifications minimize the effects of weather and other environmental factors. Wind and snow loads have been carefully calculated within the structural design thereby reducing the risk of severe weather damage.

Equally, the threats of premature ageing and attack by acid rain, vehicle fumes, agricultural chemicals and other forms of environmental pollution have been lessened by the use of specifically formulated protective coatings on wall and roof surfaces. Furthermore, wall and roof

seams and fastening systems include sealants and tape mastics that have optimal resistance to weathering, ultraviolet rays and ageing.

You have made a major investment – it makes good sense to ensure that the building remains in first class condition. Astron technology and experience reduce the risk of premature ageing and other forms of damage, however **regular inspection will maximize the performance and service life of your Astron building.**

Ask your local Astron Builder, your ideal partner to protect your building investment, for his help to establish for you an adapted maintenance program.

In its simplest form, your Astron building consists of three major elements:

- the steel structure
- the walls

- the roof.

Each element is designed for trouble-free service. However, a building – like a car – gives better service when correctly maintained.

In case of very heavy snowfalls, please contact your Astron Builder to know if the snow loads are exceeded and how the snow should be removed.



STRUCTURE

The Astron steel structure has been designed to comply with the wind and snow loads supplied by your Astron Builder. If requested it was also designed to accommodate eventual present/future building needs and modifications.

However, where alterations to the structure are being considered, the integrity of the original structural design must be taken into account. Lindab-Astron recommends that you consult your local Astron Builder before proceeding with any work which may have an impact on the structural integrity of your building. Alterations include the removal of parts such as flange braces or wind bracings. These are structural elements and can not be removed. If they are removed this could endanger human life, the durability and/or structural integrity of your building.

Where additional loads are to be imposed on the structural frame, the original design and calculations must be reviewed. Your Astron Builder must be

consulted before installing systems such as air-conditioners, heating units, sprinklers or other works which impose extra loads.

These installations may require reinforcement work for secure attachment.

This can be generally achieved easily and without altering the aesthetics or structural integrity of the building.

In many countries certain mechanical and structural items, such as bridge cranes, monorails and automatic smoke vents, are subject by law to regular inspections by qualified and legally approved organizations. Your Astron Builders can recommend on how and with whom to sign an inspection contract.

The steel structure should be checked annually and if occurring, any abraded or damaged areas should be cleaned to the bright metal and then repainted. Those repairs should be carried out immediately.

In addition we would recommend that on a regular basis you check the wind bracing rods on their tightness. These rods should be tight and not loose. In case you find them loose, they can easily be retightened with the nut and counter nut.

IMPORTANT NOTE:
Lindab-Astron declines any responsibility with regard to damage to the building or to its structural integrity, should any modifications, alterations and/or additional loads, of which Lindab-Astron has not been notified nor has specifically given its agreement, result in problems and damage to the building.



CLADDING

WALLS

The walls of your Astron building are designed for durability, but regular inspection and simple preventive maintenance will enhance their life. Wall panels of Astron buildings normally have one of the following types of coating:

- superpolyester resin
- PVDF (polyvinylidene fluoride)
- high density polyester.

All the above coatings offer excellent weathering resistance, depending on building use and environmental conditions.

SURFACE DAMAGE

Any minor damage to wall surfaces should be dealt with during regular inspections. “Touch-up” paint is generally available for Astron buildings to match the exact building colour. More serious damage may require the replacement of the wall panel. Replacement panels can be ordered for swift delivery and easy repair. Please consult your local Astron Builder for panel specifications.

CLEANING

Steel walls are less prone to the accumulations of dust and dirt deposits than the walls of conventional buildings. Rain showers will clean the steel walls of your Astron building. However, should you decide to wash the steel walls of your building, which could be required for horizontal sheeting, simply use a soft brush, mild soap and large amounts of water. Do not use abrasive cleaners or chemical solvents. Always clean your building from top to bottom.

LANDSCAPING

When landscaping your building site, it is important not to “dig in” the base of your wall panels. The base of the wall must remain free from earth and grass. The gap between the lower edge of the panel and the base profile should be free from dirt and obstructions which may accumulate moisture over long periods and so encourage corrosion. Defoliants used to kill grass and weeds around the base

of your building contain aggressive chemical agents which may result in accelerated corrosion of wall panels. Always ensure that chemical agents do not come into contact with Astron wall panels.

DOORS

Swing doors and industrial doors generally receive more daily wear and tear than other building components. They should be repainted regularly. Flashings and closures connecting the wall cladding and door frame should be examined periodically. Door hinges and door gears should be regularly lubricated. A simple door stop is recommended to avoid the door to damage the wall cladding.

ALTERATIONS

Before deciding upon any modifications – such as installing an additional door, window or ventilator – consult your local Astron Builder. He will advise you on how best to achieve the required alteration.



ROOFS AND GUTTERS

When accessing the roof, it is important that you use the adequate safety equipments as requested by applicable laws and regulations.

An annual inspection of roofs and gutters will extend the life of your Astron building.

Gutters, of course, accumulate water, snow, ice, debris and pollutants. They should be inspected and cleaned at least once a year, perhaps more frequently in areas surrounded by trees. Once gutters are cleaned, if needed, a light coat of bitumen-based paint should be applied to the inside surfaces.

Annual inspection of the gutters offers the opportunity to carry out a detailed inspection of the roof. The area around chimneys and vents should be checked (especially the area of prevailing wind direction) for any sign of fume corrosion of the roof panels. In some situations, it may be beneficial to extend the chimney to reduce exposure to smoke or to apply protective paint in an area

where obvious signs of corrosion are visible.

During walking on the roof it is recommended not to step on the high ribs of the roof panel. A point load on a rib can make a deformation on it and the high rib fixation screw can be damaged. It is recommended to step between the high ribs. It is also recommended not to wear heavy boots with deep profile sole and with nail applications on the sole as stones, concrete, nails and so on may mechanically and/or chemically damage the protection coating of the roof panels.

It is recommended to walk over the supporting purlins as they offer the strongest support for live loads. This zone can be identified on the roof by the line of the fixation of the panel to the purlins.

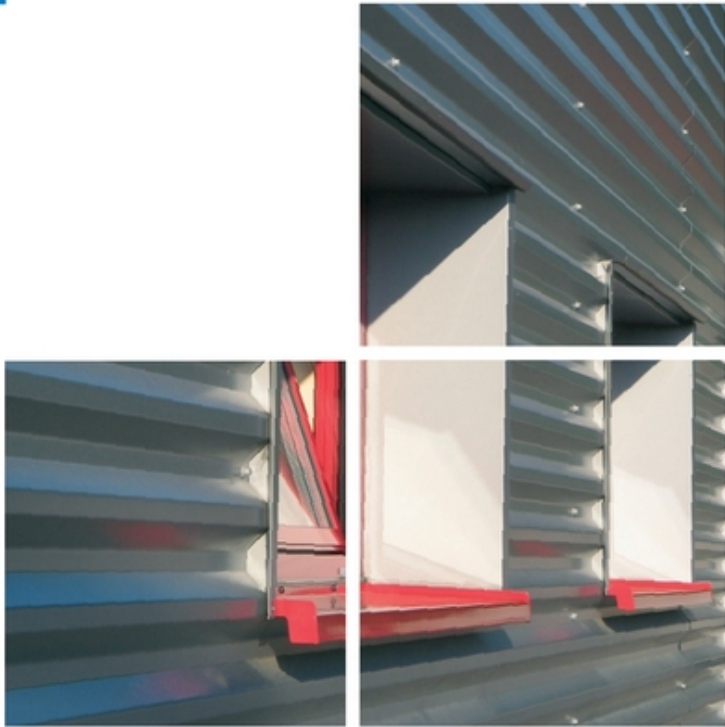
After works performed on the roof all filings and other sharp metal items should be carefully removed from the roof by cleaning with a soft brush.

The rust of these metal items

can affect the quality of the panel coating. In general the roof has to be cleaned carefully after all works performed on the roof and not used and/or not installed material has to be removed from the roof.

Roof panels of Astron buildings normally have one of the following types of coating:

- Superpolyester resin
- PVDF (polyvinylidene fluoride)
- High density polyester
- Aluzinc.



OTHER RECOMMENDATIONS

CLEANING

Cleaning routines depend largely on the character of the immediate environment. It may be necessary to wash the roof periodically in industrialized urban areas or near to the coastline, while the mere brushing of roof surfaces may suffice in rural, low pollution areas. Use similar methods to wash the roof as for the walls, using a soft brush, mild soap and lots of clean water. Do not use abrasives or chemical agents.

When cleaning, move about very carefully on the roof structure. Safety must be your priority when working on the roof.

Ask your local Astron Builder to carry out roof cleaning and maintenance. He has the skills, the know-how, the right equipment and the trained personnel.

SKYLIGHTS / SMOKE VENTS

When inspecting or cleaning your roof, take special care not to walk over skylights or plastic panels. If skylights have to be cleaned, use the same procedure as for

the roof panels. Check these components for any sign of cracking.

Concerning smoke vents, it is imperative that the smoke vents are checked and tested at least once a year by the constructor or by a certified company. Separate maintenance instructions for smoke vents delivered by Lindab-Astron are available on simple request from your Astron Builder.

INSULATION

Lindab-Astron can provide adequate material (repair kit) to help you to repair any cracks and tears in the facing.

INSTALLING PUBLICITY PANELS

Installation of publicity or advertising panels requires points for access and fastening. Before installing these panels, check with your local Astron Builder. He will advise you on correct installation.

CUTTING HOLES IN ROOF AND WALLS

An upgrading or change of production facilities or other modifications may require the penetration of new pipe work through the roof or walls, or the installation of new ventilators and extractors. In these situations, Lindab-Astron recommends that you consult your local Astron Builder.

You have made a major investment – it makes good sense to ensure that the building remains in first class condition.

Astron Buildings are a state-of-the-art building system. If you are to benefit to the full from the advanced building technology of Lindab-Astron, regular inspection and maintenance are necessary.

Maintenance of your car is best undertaken by a trained mechanic. Maintenance of your Astron building is best undertaken by a qualified Astron Builder.

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