



Technical Note:

Enhanced Cut Edge Protection with MAGNA-SHIELD PRO™ (MSP)

Superior Cut Edge Protection with MAGNA-SHIELD PRO™ (MSP)

MAGNA-SHIELD PRO™ (MSP) offers a significant advancement in corrosion resistance compared to traditional galvanised steel.

Its unique alloy composition comprising zinc, 5% aluminium, and 3% magnesium, facilitates the formation of a stable crystalline layer known as Simonkolleite.

This layer acts as a self-healing barrier, effectively sealing cut edges and providing robust protection against corrosive elements, and protection to the cut edges.

MSP provides a lifespan at least three times longer than that of conventional galvanised steel with equivalent coating thicknesses, making it particularly suitable for challenging environments such as marine, chemical, and agricultural settings.

millform.com.au/wp-content/uploads/2025/06/DIGITAL-MSP-Technical-Guide.pdf

Recommended Steel Cutting Practices

It is always preferred to have the product supplied cut to length from the Millform manufacturing process.

When on-site cutting is unavoidable, avoid using angle grinders with carborundum cutting discs (eg silicon carbide discs with woven reinforcing). Such cutting discs generate a lot of heat due to friction which can cause burring, discolouration and damage to the surface coating, shed particles that can embed into the coating or into the steel, and initiate corrosion or staining. Similarly, plasma or oxy cutting is not recommended as the high heat severely damages the coating.

Where onsite cutting of MSP purlins is unavoidable, utilising cold cutting saws equipped with tungsten carbide tipped blades is recommended, as they produce larger, cooler particles that are less likely to cause burring, swarfing and damage the protective coating.

Remove burred edges, which can create crevices that trap moisture, dirt, or chemicals, leading to accelerated corrosion. Smooth edges reduce the chance of such buildup, maintaining the effectiveness of the protective **MAGNA-SHIELD PRO™ (MSP)** coating.

When cutting is undertaken correctly, there is no need to apply any corrosion protection overcoating, such as cold-gal spray or other rust inhibitor, as the self-healing properties of MSP will provide the necessary protection over a short period of time.

11 July 2025

