



CUT-TO-LENGTH AND PROTECTION OF CUT EDGES

Introduction

Most continuously anodised aluminium is employed in sheet form. This means that the coil must be broken down into sheets in a cut-to-length operation in a metal service centre.

General comments

In order to achieve sheets with perfect flatness without damaging the anodic film layer is a specialist process involving a particular specification of cut-to-length line and specialist operators.

In Europe, this process is carried out by COIL's rolling mill customers and by certain specialist service centres. Sheets are typically available in a range of standard sizes from leading metal distributors throughout Europe. Non-standard specifications are available in coil size quantities. COIL does not generally recommend that customers carry out or sub-contract the cut-to-length operation.

COIL regularly ships sheets to customers in destinations outside Europe.

A limited number of service centres exist outside Europe with the experience to provide reliable cut-to-length operations for continuously anodised aluminium. Where a customer wishes to order in coil form and carry out their own cut-to-length operation, any resultant damage in the cut-to-length process will be at the entire risk of the customer. COIL can provide further advice on request.

Technical considerations for cut-to-length

Special attention should be given on the cleaning of the cut-to-length line before processing, including:

- Removal of aluminium particles
- Pull cleaning felt through the line
- Working in production campaigns

During the cut-to-length process:

- Use oil or lubricant during leveling.
- Avoid too much pressure which can damage the anodic layer
- For higher gauges (> 2 mm) or higher anodic layer thicknesses (> 10 µm), apply protection film after leveling.

Cut edges

Unlike paint, anodising does not suffer from filiform corrosion and, therefore, there is no risk of the propagation of corrosion affecting the flat surfaces of the sheet after cut-to-length. The cut surface of the aluminium will oxidise naturally and rapidly, thereby ensuring adequate surface protection of the cut surface.