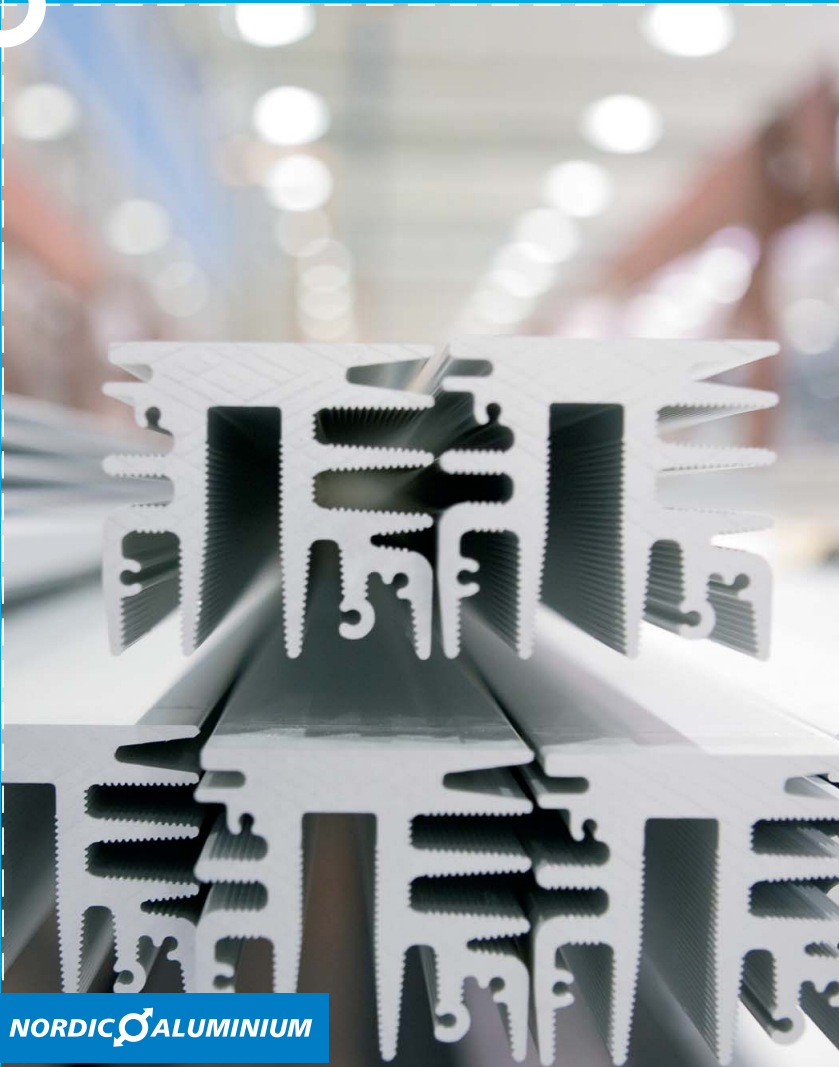


The innovative aluminium manufacturer

Quality in Focus



**NORDIC**  **ALUMINIUM**



# The market leader in aluminium

Nordic Aluminium designs, manufactures and markets high quality aluminium profiles and components. The company is the leading lighting track manufacturer in Europe and the domestic market leader in all its main product areas.

A close cooperation with our customers is emphasised in all stages of the service chain. High quality standards and innovative use of the unique characteristics of aluminium are essential principles of Nordic Aluminium – be it product design, production or refinement. That is why the company's motto is "Quality in Focus".

## Versatile service capability

Nordic Aluminium offers its customers innovative customer and standard aluminium extrusions and a multitude of effective manufacturing services. Our sections are used in various applications in the fields of building, electrotechnical engineering, transportation, as well as in domestic and office applications.

Our objective is to promote and contribute to the success of our customers' businesses and to develop into the most desirable aluminium manufacturer in the market.

## Wide selection of alloys

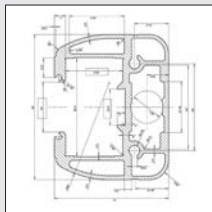
Pure aluminium is a soft and easy-to-work material. For some purposes these properties are just right, but in most cases pure aluminium is not strong enough. To provide sufficient strength, a wide variety of aluminium alloys are used. The most important alloying elements are silicon (Si), magnesium (Mg), manganese (Mn) and zinc (Zn).

A best alternative for each customer's specific needs can be found from our large variety of alloys.



## Pioneer in profile design

Nordic Aluminium is a pioneer in aluminium profile design. Since 1962 over 24 000 different extruded aluminium sections have been manufactured to meet our customers needs. Our design service helps our customers to find the perfect solution. In cooperation with our customers we design several new profile shapes per day.



## Customised sections

Nordic Aluminium mainly manufactures advanced sections to the needs of its customers. In addition to customised sections we can offer a versatile selection of standard profiles. A finished product usually involves additional manufacturing services, such as cutting, bending, welding, punching, impact extrusion and NC-machining. Various surface treatments will finally provide products with the desired finishing touch.



## Aluminium components

Aluminium components are manufactured for most lines of business represented by our customers. In addition to comprehensive aluminium manufacturing services, the modern design and programming tools ensure the fulfilment of our customers' needs quickly and efficiently. Our specialities include components for the telecom, shipbuilding and transportation industries and heat sink solutions for the electronics industry.



## Architectural systems

Nordic Aluminium architectural systems are designed in Finland to stand up to the wear and tear of the demanding Nordic climate. Thanks to our continuous product development and extensive experience, our products are technically advanced and of high quality. The aluminium architectural systems are stored and distributed in Finland, Russia and the Baltic countries by Onninen Ltd.

The architectural systems are extremely versatile and have a wide range of applications. Different systems can be combined together and can even be supplemented with new profiles.





## Extensive manufacturing services

In addition to precision machining, such as facing and drilling, Nordic Aluminium service capacity includes an extensive variety of manufacturing services. To ensure a fast and efficient production of the customised products, these services include:

### Cutting

Extruded aluminium sections are cut at the extrusion line saws to standard tolerances. The exact cut lengths, mitre cuts etc. are cut with precision saws according to the customer's wishes.

### Punching

Punching and notching are cost-effective punching methods for thin wall thicknesses.

### Machining

Our versatile machinery enables a demanding machining of both long sections as well as shorter pieces. The three FMS-lines at our Nivala factory enable the high volume production of small and medium sized sections.

### Welding

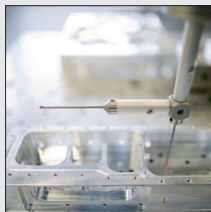
Nordic Aluminium uses MIG and TIG methods for welding. We have extensive experience in welding both thin and thick walled shapes. Robot welding is used for high volume series.

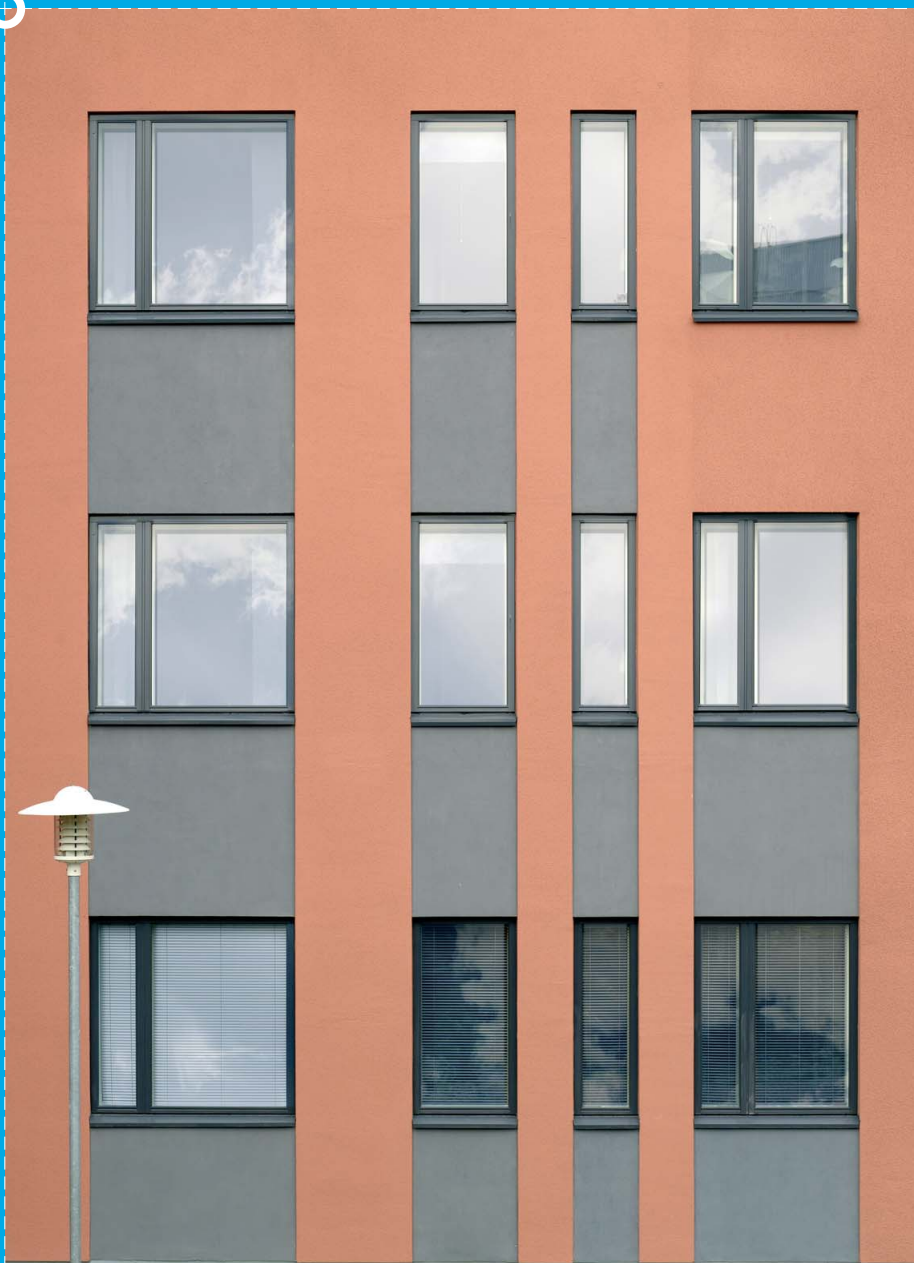
### Bending

Bending can be done into very small bending radii, since we are able to do it before the heat treatment. We have roll, die and mandrel bending methods at our disposal.

### Partners and subcontractors

In addition to our own competence, we cooperate with a large network of partners, consisting of top class companies in their own respective fields. If needed, our customers' needs can also be fulfilled in regards to special machining; for example laser and water cutting are available. Our range of services include unit and special surfacing likewise.







## Added individuality with surface treatments

The unique characteristics of aluminium such as corrosion resistance, tolerance for weather and temperature changes as well as UV-radiation can be improved even further with surface treatments. Nordic Aluminium offers anodisation and powder coating as standard surface treatments. Decorative finishes and other surface treatment methods are offered through out subcontractors.

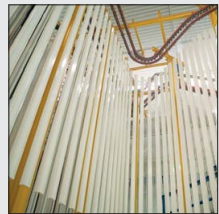
## Anodisation for enhanced weather and corrosion resistance

Anodised surfaces are highly resistant to abrasion and corrosion. Metal oxides may be added to the anodic finish to reflect light with a dim metallic lustre. In addition to the natural colour of aluminium, this technique allows the production of various UV-resistant shades of red, yellow and bronze, as well as black. The anodising layer is so thin that it does not have to be included in dimensions or stripped off before the aluminium is reused. Anodised aluminium is suitable for applications such as facades, window and door structures, panels, railings, transport equipment, flagpoles and masts, indoor and outdoor furniture, instruments, equipment and accessories.



## Powder coating

Powder coating is an excellent choice for products requiring extra corrosion and weather resistance, without compromising in appearance. During the powder coating process the product is coated with a thin layer of powder that melts in the thermal treatment and adheres permanently to the surface. As a result, the coated surface is resilient and resistant to strong UV-light, as well as to abrupt temperature variations. Nordic Aluminium has the first chrome free pre-treatment powder coating line in the Nordic area. Powder-coated aluminium is well suited for use in facades, window and door structures, interior and outdoor decoration and furnishings, ceilings and panels.





## Expert in manufacturing services

Nordic Aluminium has the highest degree of value added services of profile extruders in the Nordic region. Our versatile services are carried out in the two production units. The main factory is located at Pikkala, some 40 km west of Helsinki. Our Nivala factory is specialised in high-speed precision machining.

## Long profile know-how specialist

Customised sections according to customers' requirements and standard profiles are designed, extruded and surface treated, if required, in our Pikkala, Kirkkonummi factory. We have concentrated the manufacturing know-how of long profiles to Pikkala, Kirkkonummi. We manufacture extruded aluminium sections to components by cutting, bending, welding, punching and CNC-machining. The surface treatments are carried out efficiently in our state-of-the-art anodisation units and vertical powder coating facilities.

## High speed machining professional

Our Nivala factory is specialised in high-speed precision machining. Products manufactured for our customers include RF-filter housings and various other products for the telecommunications, electrotechnical, transportation and shipbuilding industries. We have three FMS-lines with 25 high-speed CNC-machining centres. The machining know-how of traditional and high performance heat sinks has also been concentrated in our Nivala factory.



*The manufacturing of long profiles has been concentrated to Kirkkonummi.*



*The Nivala factory specialises in precision machining of aluminium.*

**NORDIC  ALUMINIUM**

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