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**GLOBAL  
COMPETENCE IN  
ALUMINIUM SOLUTIONS**

# DEVELOPMENT.



Our production strength is a long tradition that began in 1780. Further strategic growth was triggered when Neuman Aluminium was taken over by Dr. Cornelius Grupp. This started in 1981 with the company at Marktl, Lilienfeld, Austria and further developed to a global and strong industrial group. We operate worldwide in 17 plants with more than 3.000 employees. The company is 100% owned by Dr. Cornelius Grupp.

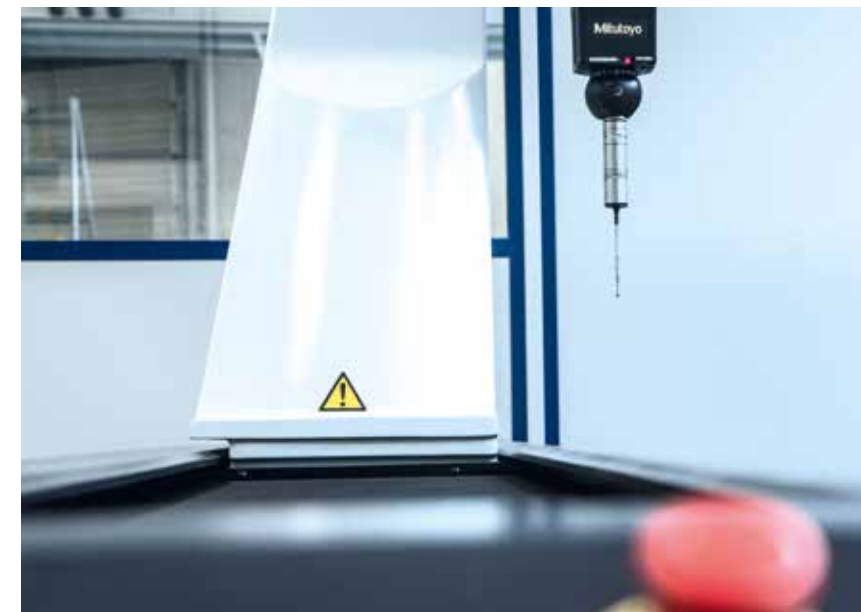
# PRECISION.

Neuman Aluminium Group is specialised in the development and production of high value added Aluminium components. High precision and excellent quality is our trademark as well as being on time. Because: Our mission is to meet the needs of the customers.



# PERFORMANCE.

Our long time experience in very different technologies of Aluminium processing is beneficiary to our customers. We seek – and find – innovative solutions in the industrial areas of Automotive, Construction, Electric and Electronic as well as Safety Technology and Packaging.



# WELCOME TO WORLD CLASS.



**3.000**  
EMPLOYEES

We have 2800 employees in our global Neuman Group and these employments are spread globally as follows: in Europe 1850 employees, in China 750 and in the NAFTA region 220 employees.

**100%**  
FAMILY OWNED  
COMPANY

“As a family company, we don’t think short term, but long term: we think in generations.” Dr. Cornelius Grupp

**10**  
PRODUCTION  
SITES

The Neuman plants are located on 3 continents, in 8 countries and at 10 different locations.

**495**  
MIO €  
TURNOVER

From the total turnover we have approx. 70 % in Europe, approx. 20 % in China and approx. 10 % in the NAFTA region.

**17**  
PRODUCTION  
PLANTS

## Globale Competence

Neuman Aluminium Group is a global partner for customers in need of aluminium products, especially from the automobile industry. Through all our divisions Neuman can offer a variety of different Aluminium forming processes. Our focus is on global growth through our expertise in innovative Aluminium solutions.

As an enterprise, the Neuman Aluminium Group produces at 10 different locations in Europe, North America and China. As an organisation, we are structured into five segments: Casting and Slug Production, Direct Extrusion, Impact Extrusion, Roof Systems and Chassis Components. As a group, we develop solutions in various fields such as: Automotive, Construction, Electro and Electronic Industry, as well as Safety Technology and Packaging Industry. The Neuman Aluminium Group is led by Fried.v.Neuman GmbH out of Marktl, Austria.



# STRONG HISTORY.



Dr. Cornelius Grupp

**History:**

- 1981 Takeover Fried.v.Neuman through Family Dr. Cornelius Grupp
- 1986 Takeover of Slug Plant in USA
- 1991 First Extrusion press at the location of Marktl, Austria
- 1996 Foundation of Neuman Aluminium Impact Extrusion Slovakia
- 1999 Takeover Neuman Aluminium Rottenburg, Germany
- 2002 Start of greenfield Slug plant at Xinhui in China
- 2004 Takeover Raufoss Norway and Raufoss Montreal, Canada
- 2005 Start of Neuman Aluminium Impact Extrusion at Waynesboro, USA
- 2007 Takeover PWG Profilrollen-Werkzeugbau, Neuhaus-Schierschnitz, Germany
- 2007 Start of Raufoss Suzhou, China
- 2008 Start of Billet Cast House at Marktl, Austria
- 2010 Start of PWG Suzhou, China, Sales of Slug plants NA (USA, CAN)
- 2012 Expansion of the Slug plant at Xinhui, China
- 2014 Start of Neuman Profile-Machining at Žarnovica, Slovakia
- 2015 Start Neuman PWG at Žarnovica, Slovakia
- 2016 Start Neuman Raufoss Mexico, Lagos de Moreno, Mexico
- 2017 Start Neuman PWG Mexico, Lagos de Moreno, Mexico



## Neuman Aluminium is making History

As a medium-sized company, the Neuman Group manufactures at 10 locations in Europe, North America and Asia. From an organisational perspective, we are structured into five divisions working in 10 different locations globally.

Our five divisions are: Slug Production, Direct Extrusion, Impact Extrusion, Roof Opening Systems and Chassis Components. We develop solutions for the automotive-, the construction-, electronics- and the packaging industries.

The Neuman Aluminium Group is led by Fried.v.Neuman GmbH. There has been a metalworking industry at the location of the Neuman Group in Marktl, Lilienfeld, Austria since 1780. Fried.v.Neuman was founded at that location in 1880. The Neuman Group was taken over by the entrepreneur Dr. Cornelius Grupp in 1981, who developed it into an international and rapidly expanding industrial group. Today, approximately 2.800 employees generate a revenue of around 495 million euro. The Neuman Aluminium Group is wholly owned by CAG Holding (Dr. Cornelius Grupp).

# FUTURE IN DEVELOPMENT.

## Innovations for our Growth

Neuman Aluminium can offer a wide range of aluminium forming technologies, which enable us to have the right comprehensive solution to meet each of our customer's requirements. Through our innovative solutions we are growing globally in all parts of the world – in many cases we are the preferred development partner for potential customers.

## Quality

We are committed to an integrated management system in accordance with the guidelines of ISO 9001, IATF 16949, ISO 14001, OHSAS 18001 and ISO 50001. We are highly motivated to meet the requirements and expectations of our customers and to offer optimum service. Our ultimate goal is to continuously increase customer satisfaction. For that purpose, we take the utmost care to comply with promised target dates. To do this, we strive for zero quality defect in production.

## Environment

We avoid using environmentally polluting, health endangering substances or procedures that require large amounts of energy when manufacturing and marketing our products to the extent that their use is not required for technical, quality or other compelling reasons. And because we consider clean energy to be another indicator of quality, an essential portion of the electrical power used at our Marktl site comes from our own hydroelectric power plants.

Further details are available in our latest sustainability report.

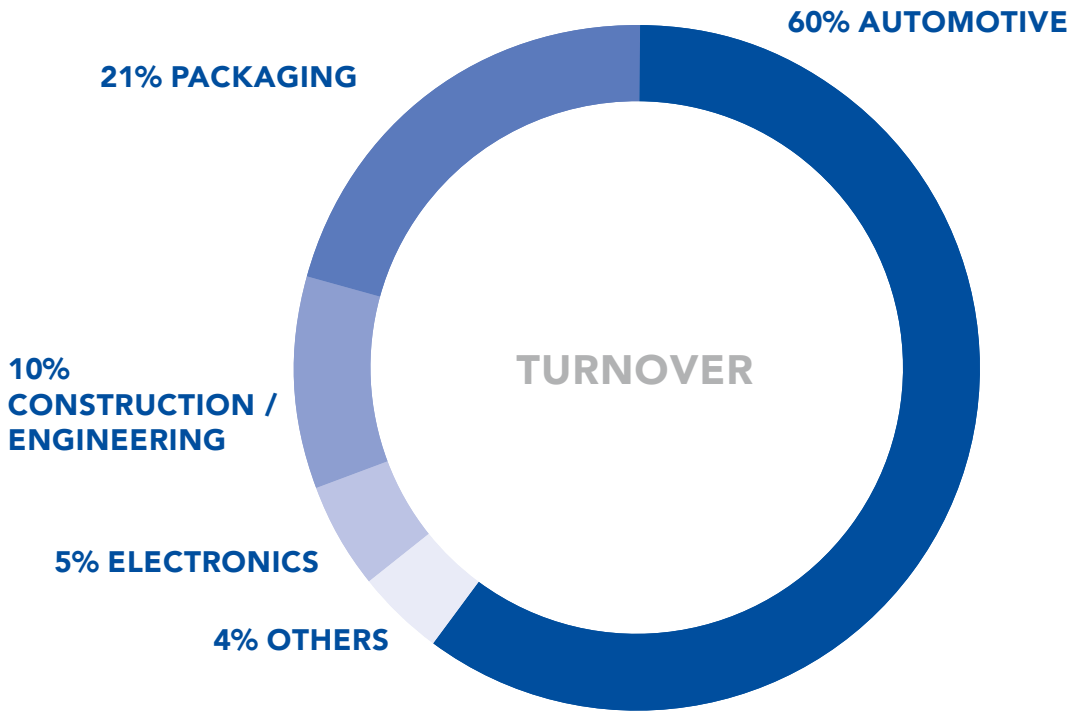




# WE BRING ALUMINIUM INTO SHAPE.

## Solutions with the "Light Metal" Aluminium

The Neuman Aluminium Group stands for outstanding competence through top technological performance. We combine many years of experience with a great variety of technologies for processing Aluminium, whether melting, casting, punching, direct extrusion, impact extrusion, forging, milling, bending, sawing or heat treatment: We employ our development competence and knowledge to offer our customers individual solutions.





# CASTING AND SLUG PRODUCTION

Marktl, Austria | Xinhui, China



# IMPACT EXTRUSION / COLD FORGING

Marktl, Austria | Žarnovica, Slovakia | Rottenburg, Germany |  
Waynesboro, USA | Xinhui, China



Melting



Cont. Casting and Rolling



Slug Production



Horizontal Casting



Slugs



Impact Extrusion Process



Heat Treatment



Final Processing

Neuman Aluminium is one of the biggest Aluminium slugs producers in the world. High level of metallurgical know-how, specialized production equipment, precise delivery schedules and absolute price transparency make us a preferred and reliable supplier. Many customers from very different industry sectors use and trust the slugs from Neuman Aluminium.

Primary aluminium as well as scrap material is melted in our melting furnaces. With the help of "Rotary casters", we cast the liquid Aluminium directly into coils. State of the art in-line test equipment ensures the consistent high quality of our casting technology. The strips are then rolled using hot and cold rolling processes in order to achieve the desired slug thickness.

The desired slug shapes are punched out of the finished strip. The slugs are heat treated in annealing ovens for further processing by the customer.

### Horizontal Continuous Casting Billets and Rods

Neuman Aluminium Austria manufactures extrusion billets and forging rods in a horizontal continuous casting process. The fully integrated, 100% ultrasonic testing makes it possible to manufacture safety-relevant products. In addition, we can also offer our customers bars (forging rods) with smaller diameters using the same casting technology.



Neuman Aluminium is the market leader for impact-extruded / cold forging parts for technical applications and therefore also one of the biggest producers worldwide. Our high-tech production lines produce impact-extruded / cold forging products, which are used in a great variety of applications such as: Automotive industry, defence and aerospace industry, household appliances and consumer products, electrical and electronics industry.

The raw material for the impact extrusion / cold forging process are slugs, made from the required material composition (alloys) and with a size similar to the final part. The Aluminium slugs are processed in soft condition. Using knuckle-joint and hydraulic presses with press forces ranging between 20 tons and 2.000 tons,

we produce parts with lengths up to 600 mm and outer diameters up to 220 mm – based on impact extrusion experience generated since 1934.

With more than 20 years of experience in heat treatment of Aluminium alloys we provide exactly the desired mechanical properties needed for each independent product. We use highly efficient machines for machining impact-extruded parts, not only for large batches, but also for medium quantities. At our highly efficient and reliable automated lines, we assemble and pack the parts according to customer requirements. Our goal is to meet our customers surface requirements in order to be considered a long-term partner.





# DIRECT EXTRUSION

Marktl, Austria | Žarnovica, Slovakia



# FORGING AND ASSEMBLY (RAUFOSS)

Raufoss, Norway | Montreal, Canada | Suzhou, China | Lagos de Moreno, Mexico



Billet Heating



Extrusion Process



Profile Processing



Profile Processing



Forging Process



Machining

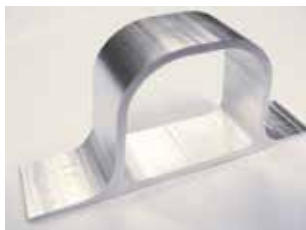


Testing



Thanks to our technology, we can produce a variety of geometries with direct extrusion. With us you will find nearly endless potential in product innovations. Among others, we deliver to industry sectors such as construction, furniture manufacturing, logistics, sports and recreation, machine building, electrical systems up to the demanding automobile industry. In addition to the highly individual profile designs based on customer drawings, we also have an assortment of standard profile tools. At our direct-extrusion plant in Marktl, we process more than 42.000 to of Aluminium billets into high-quality Aluminium profiles for stockist and manufacturing companies with 3 extrusion presses (8", 2500 to).

At our Slovakian location Žarnovica, we operate a processing centre for our profiles (sawing, milling, punching, bending, turning, drilling, grinding, welding, etc.). Here we produce complex parts with tight tolerances in 3-, 4- and 5-axis machining cells followed by special assembly when required. We have the necessary knowledge, experience, capacity and technical equipment to manufacture precise machined and finished Aluminium profiles always in the desired volumes levels and timing. We pride ourselves in being a reliable and precise supplier for our customers.



Neuman Raufoss is a Tier 1 automotive supplier responsible for the design and manufacturing of aluminium light weight chassis components. The core competence is in the product and process development with validation through simulation. Neuman Raufoss key processes are hot forging, cold forming (called ExtruForm®) and integrated ball joint assemblies with Aluminium. With our 4 manufacturing plants in Norway, Canada, China and our new plant in Mexico, we are globally located to serve our OEM customers. Our aluminium suspension components are used in some of the most well-known car models in the world. Our unique Aluminium forming processes, combined with specialized ball joint design and assembly, position us as a leader in lightweight solutions for the automotive chassis sector.

**Rear Lower Control Arm and Suspension Links**  
Raufoss develops and manufactures Rear Lower Control Arms assembled with either spring guide or bump stop cup and with assembled bushings. With our patented ExtruForm® process, we are capable of providing the best light weight solution. Our products are typically 40 to 50 percent lighter than comparable steel solutions.

**Front Lower Control Arm, Front Upper Control Arm and suspension links**  
Our Aluminium forged McPherson solution is typically 30 percent lighter than comparable steel solutions. Our 100% automated forging lines, combined with our Aluminium knowledge allow us to custom design our alloys to our forging processes and offer products with the high-

est level of mechanical properties. Our forging process includes a unique pre-forming process which enables us to achieve optimal material utilization.

**Ball joint**  
We have successfully developed our own ball joint solutions. These ball joints can either be integrated into our suspension components or be used for paddle assemblies. Our design and validation activities are supported by our, state-of-the-art ball joint testing laboratory.



# PROFILE PROCESSING (PWG)

Neuhaus, Germany | Žarnovica, Slovakia | Suzhou, China | Lagos de Moreno, Mexico



# GLOBAL FOOTPRINT.



Bending Operation



Fully automatic production cell



Milling with up to 5 axes



Neuman PWG (Profilrollen-Werkzeugbau GmbH) at Neuhaus-Schierschnitz/Germany with subsidiaries at Žarnovica/Slovakia, Suzhou/China and Lagos de Moreno/Mexico is world-wide known in the automotive supply industry as a specialist in bending and machining Aluminium profiles with very tight tolerances and excellent surface quality. Our main product focus is parts for automotive roof opening systems and parts for convertibles (hard tops and soft tops).

Highly complex and fully automated production facilities for entire assemblies are equally part of the manufacturing spectrum and it's individual small-scale production. In order to be able to offer ready-to-install assemblies from a single source, we also perform welding, assembly and coating work with our strategic partners. We are proud to be a cooperative, reliable and transparent partner for our customers from the prototype phase through serial production.

Our integrated production processes cover punching, embossing and milling technologies on equipment that we designed ourselves. In addition, our technology is based on 2-dimensional and 3-dimensional bending. The shaping of Aluminium profiles from an already milled profile makes it possible to achieve considerable savings in material with constant quality compared to conventional cambering and bending technology.



Neuman PWG | Neuhaus | DE  
Neuman Impact Extrusion | Waynesboro, VA | US

Neuman PWG | Suzhou | CN  
Neuman Raufoss | Montreal | CA

Neuman Slugs | Xinhui | CN  
Neuman Impact Extrusion | Žarnovica | SK

Neuman Raufoss | Suzhou | CN  
Neuman Impact Extrusion | Rottenburg | DE

Neuman Direct Extrusion | Markt | AT

Neuman Impact Extrusion | Markt | AT

Neuman Raufoss | Raufoss | NO

Neuman PWG | Žarnovica | SK

Neuman Raufoss and PWG | Lagos de Moreno | MX

Neuman Slugs | Markt | AT

Neuman Direct Extrusion | Žarnovica | SK

Neuman Impact Extrusion | Xinhui | CN



# OUR FLAGS.

**NEUMAN  
ALUMINIUM**

SLUGS

IMPACT EXTRUSION

DIRECT EXTRUSION

RAUFOSS

PWG

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## Neuman Aluminium Raufoss



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## Neuman Aluminium Impact Extrusion



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