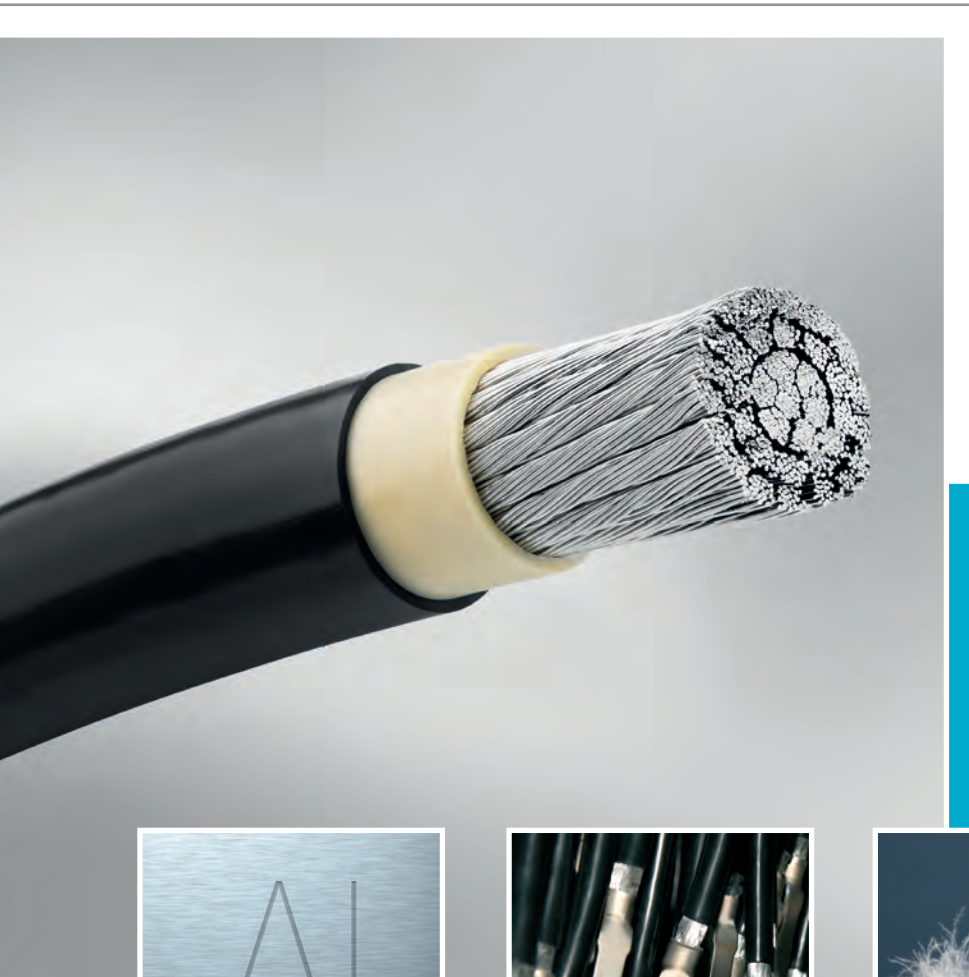




Gebauer & Griller



## Aluminum in electrical conductors



## About Gebaauer & Griller

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Gebaauer & Griller was established in 1940 and since then has developed into one of the leading producers of cables and wires.

According to our strategic focus we offer – on a national and international level – a large variety of cables and wires as well as products tailor-made to customers' requirements and specifications. An innovative team of specialists and the company's own production facilities ensure optimal customer support.

Continuous enhancement of products guarantee high quality products and optimization of quality and costs. Successful product development coupled with a permanent modernisation and expansion of our production plants has led to the result that Gebaauer & Griller products are globally applied.

A sophisticated quality management employing the latest test instruments and laboratory equipment ensures top quality – proven in series production of premium-class vehicles as well as high-volume production.

## Consulting and Engineering

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Our success is based on the philosophy of finding just the right solution for each customer requirement.

Our know-how, state-of-the-art technology as well as constant modernisation pave the way for a widely automated production system.

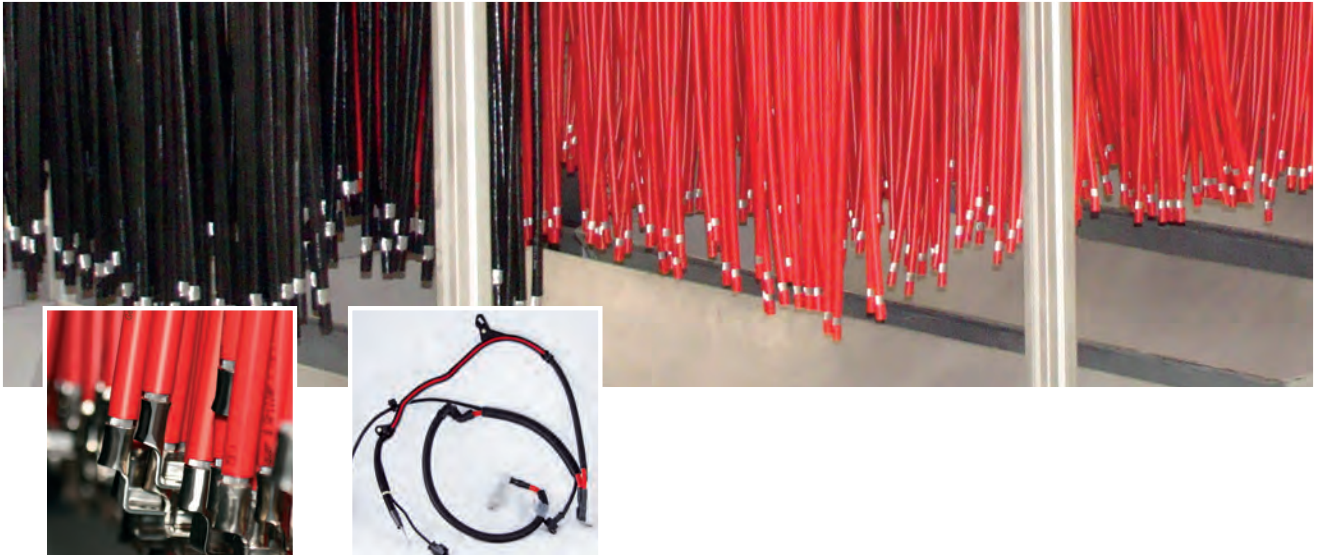
Specialists in the fields of cable construction and assembly are working together with our customers to develop innovative and costoptimised wiring concepts.

It is our aim to maintain the high standard in the area of product development and continue to expand it together with our customers.

Our products comply with international standards and specific requirements of our customers. Based on our experience and competence as a leading manufacturer of wires and cables, we give the highest priority to customer benefits.

Individual collaboration and personal support guarantee a successful working relationship.

# Aluminum



## Aluminum as Conductor Material

The excellent conductivity and ductility make copper the standard material for cables and wires. But in comparison to aluminum, it is heavy and expensive. The switch to the much more cost-effective and the lighter aluminum is a interesting option.

- Cost reduction
- Weight reduction
- Flexible cables
- Easy handling
- Lower risk of theft, etc.

With the specially developed and protected contacting technologies, Gebauer & Griller has achieved to avoid the issue of electrochemical corrosion with copper or copper-alloy terminals.

### Cross Section

Aluminum has about 61% conductivity of copper

- To get the same resistance a 63% bigger cross section is needed (30% higher Diameter)
- Cross section of up to 240 mm<sup>2</sup> (150 mm<sup>2</sup> Cu)

### Weight Reduction

The specific weight of copper is 3,3-times higher than that of aluminum. An aluminum conductor needs only about 50% of the metal weight to reach the same resistance.

### Lower Material Costs

Currently the aluminum price is about 40% of the Copper price.

**Pure Metal Price: Aluminum vs. Copper = 1 : 5**  
**(50% Weight x 40% Price = 20%)**

## Aluminum: Core Competency

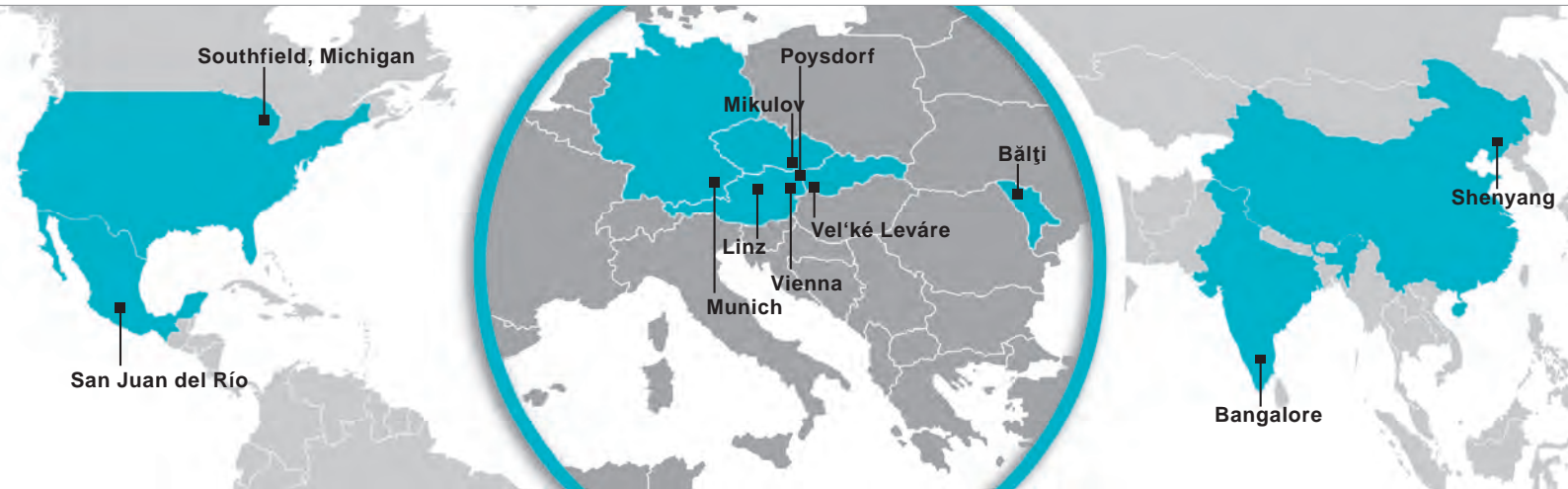
- Gebauer & Griller have been supplying flexible aluminum harnesses to the automotive industry for 15+ years. (BMW, VW, Fiat/Chrysler, Daimler, etc.)
- Gebauer & Griller Technology is State-of-the-Art both for aluminum wires and aluminum contacting with its patented welding and soldering technology
- Gebauer & Griller aluminum harnesses can be applied in a large scope of environments and requirements (such as humidity, vibration, etc.)

## Full Integration of Wire Manufacturing

- Copper and Aluminum Drawing Units
- Stranding and Bunching Machines
- Insulation Compounding Plant
- Core Extrusion Lines
- Wire Braiding and Helically Lapping Machines
- Sheath Extrusion Lines
- Spooling Machines



innovative - competent - reliable



## Contact

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### Headquarters

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