



Productivity and Competitiveness: 1 million parts per hour

- Regular annual investment of approximately 10% of turnover to support an optimum production of 1 million parts hourly,
- Optimization of the implantations and workflows thanks to a 3D digital twin tool.

Responsive, Seamless Logistics: objective 100% order fill rate

- Appropriate stocks for maximum responsiveness to customer demands,
- All our products are shipped and checked by us, including all items undergoing subcontracted intermediate operations,
- Our information system is equipped with an EDI solution incorporating ODETTE and EDIFACT and all associated messages,
- A secure Information System based on a Best-in-Class ERP solution ensures cross-functional application of business processes, traceability of information and high data availability.

Product Quality: target 1 PPM

- Consistent 1 PPM yearly average quality level with a "zero defects" approach through automated optical sorting of our whole production (0,13 ppm in 2018),
- Up to 100 million parts sorted per month to segregate anomalies and avoid all comingling,
- *Supplier Award 2013* from RENAULT NISSAN Europe,
- *Supplier Best Plant Award 2018* from PSA GROUPE.

References



Safety, Environment and Quality Management

- The Total Management System based on tight control of indicators delivers smooth operation, improvement and efficiency of business and technical processes.
- Monitoring the performance of our suppliers and subcontractors by performing audits according to the VDA 6.3 standard (GRIS GROUP auditors are certified *Process auditor 6.3*),
- Cleanliness Testing Laboratory: component cleanliness cabinet and analysis with *Filtrex Automotive®* Software (compliant with automotive industry standards).



Certifications and Commitments

- ISO 9001 and IATF 16949 Quality Certifications since 1993,
- ISO 14001 Environment Certification since 2007,
- Membership and support of United Nations Global Compact.

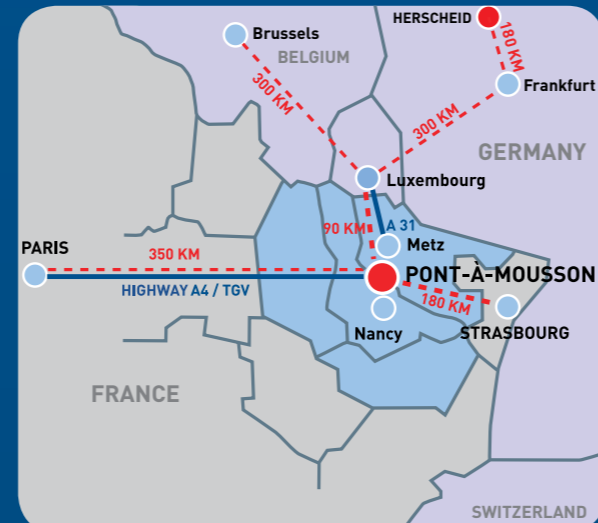


GRIS DÉCOUPAGE

Z.A. de la Louvière - 54700 LESMENILS
Postal address:
BP 185 - 54706 PONT-À-MOUSSON CEDEX

Tel.: +33 (0)3 83 80 80 00
Fax: +33 (0)3 83 80 80 20
accueil@gris-group.com

Commercial contact:
Tel.: +33 (0)3 83 80 80 06
commercial@gris-group.com



GRIS UMFORMTECHNIK GmbH

Reidemeisterstraße 9
D-58849 HERSCHIED

Tel.: +49 (0)2357 609-0
Fax: +49 (0)2357 609-99
vertrieb@gris-group.com

Commercial contact:
Tel.: +49 (0)2357 609-24
vertrieb@gris-group.com



www.gris-group.com



Fastened on Ongoing Progress!



Manufacturer of
ENGINEERED WASHERS
MECHANICAL COMPONENTS
DIE-CUT ENGINEERED PARTS

www.gris-group.com





• The Company

For more than 35 years the GRIS GROUP has been building on its metalworking know-how to manufacture engineered washers, mechanical components and die-cut engineered parts in medium and large runs on high-productivity presses.

Through a number of external growth operations and successive investments in complementary processes, our firm has over the years consistently remained at the forefront of technology while meeting customers' demands for a "zero defects" quality approach.

Today, with 230 employees, the GRIS GROUP owns two production sites equipped with different but interrelated technologies, one in France and the other in Germany. It is a first-tier supplier to leading vehicle manufacturers Renault Nissan Dacia, PSA Peugeot Citroën, Volkswagen, Audi, Daimler, BMW and General Motors and to virtually all automotive equipment makers and large specialist bolt manufacturers.

The group also supplies many other industry segments, including rail, agricultural machinery, construction, electrical equipment and specialist distribution.

Our high-quality, high-performance products are in service all over the world.



• Products

Our products are widely used in gearboxes and drive train components among other applications. They can be grouped into three basic categories: mechanical components, engineered washers and die-cut engineered parts.

> MECHANICAL COMPONENTS

- Examples:
- Shims
 - Bearing support and bearing flange parts
 - Wear and friction parts for differential housings



> ENGINEERED WASHERS FOR FASTENING SYSTEMS

- Flat washers
- Tapered washers
- Special shaped washers
- Calibrated washers
- Serrated calibrated washers
- TREP® and TREP® INOX spring washers



> DIE-CUT ENGINEERED PARTS

- Examples:
- Electrical connections
 - Fastening lugs
 - Stamped covers and plugs
 - Deflectors



- Raw materials**
- All types of metals:
- Hot rolled steel - HRS
 - Cold rolled mild steel
 - Carbon steels
 - Alloy steels
 - Stainless steels
 - Nonferrous metals: aluminium, copper, brass, bronze, nickel

• Research & Development

IN-HOUSE TOOL DESIGN

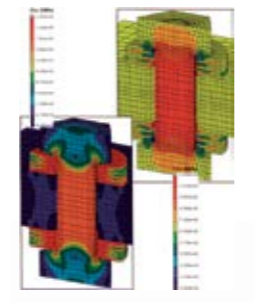
Our R&D department is the primary source of the company's know-how and is run by teams of mechanical engineers and technicians using the latest-generation CADD stations and a cold-forming processes simulation software.



We are an expert member of the UNM, AFNOR and ISO standards organisations, the CETIM research centre and the german associations DSV and IBU.

APPLIED RESEARCH

- Tests and simulations in specific configurations:
- Loss of tension in an assembly
 - Fatigue stresses
 - Unscrewing test
 - Failure study
 - Work with CETIM and AFFIX
 - Contribution to the republishing of the ICS handbook: Industrial screw mounting, published by Mönning Verlag



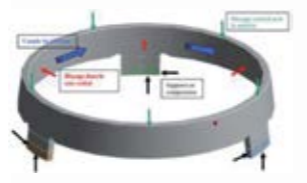
PRODUCT INNOVATION

Redesign of an existing product in response to a customer need in the rail transport field.



PRODUCT RESEARCH AND CO-DESIGN

- At the customer's request, development and Ecotech research work for specific product configurations:
- Process-product adaptation
 - Proposal for engineering savings from changes made (resizing, streamlining, mechanical properties)



• Processes

Complementary processes for an adaptable range of products.

- **Die-cutting using compound dies (high speed)**
Fully automated lines of 200 T
Thickness: 0.5 to 7 mm
Manual die-cutting presses of 160 to 250 T
Thickness: max. 10 mm
- **Rapid progressive die-cutting**
Fully automated lines of 25 to 200 T
Thickness: 0.10 to 5 mm
- **Cold forming**
Cold forming lines of 200 T
550 strokes/minute
High-precision calibrated geometries
- **High-speed transfer**
Transfer presses of 250 T and 630 T
- **Bending-Welding process**
Optimization of the use of raw material (reduction of material loss up to 90 %)
Part diameter: 140 to 180 mm
Wire cross-section: 8 X 4 mm to 9 X 8,5 mm
- **Surface grinding**
Automatic lines for double-side surface grinding
- **Hard Turning**
Special forms and alternative to internal grinding
- **Washing/deburring processes**
Brushing
Tribofinishing
Centrifuging
- **Dimensional optical sorting and surface inspection**
Sorting lines with optical inspection (camera and laser)
"Zero defects" quality policy
Automatic packing on sorting lines
Monthly capacity of 100 million items
- **Packing**
Automated packing line.
- **Auxiliary services**
 - Subcontracting
Heat treatment
Surface treatment

