



Convincing with outstanding solutions:  
the efficient power on the strip.

finishing lines division



mit uns technisch überlegen




**'With a passion for technology we at GEORG have been developing inspirational solutions for generations which is being driven by both our success and our customer confidence.'**

**Mark Georg**  
CEO & Chairman of the Board





# That is GEORG.

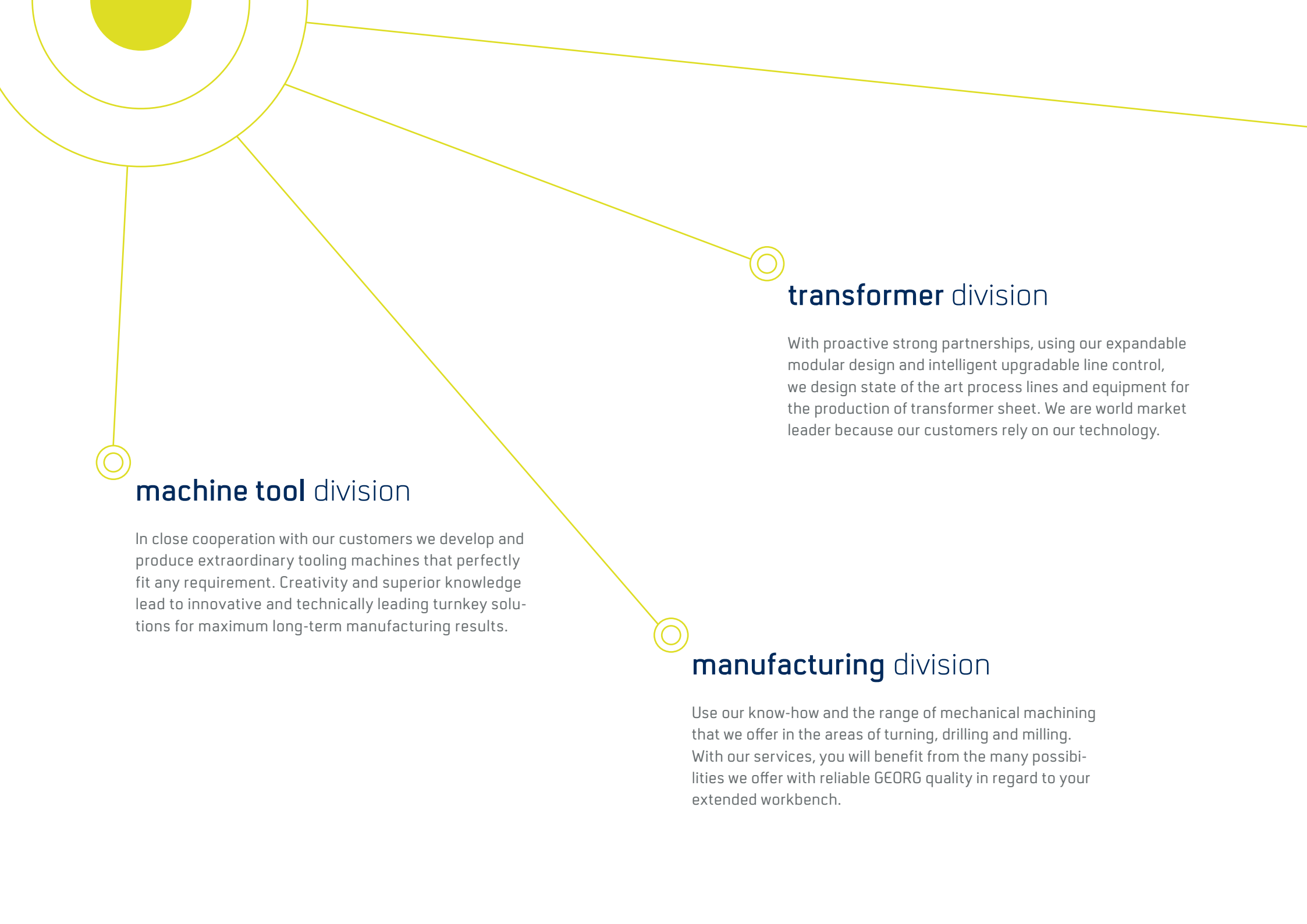


**‘future-driven knowledge’** – where the future starts, GEORG first point of contact.

Our Company history from its birth to date is a signpost for a strong future. Founded in 1948 as a visionary one-man business, GEORG today is a successful family-owned company and a global player. We link the experiences of several generations to meet the technical challenges and to create new market impulses.

What we have in common is our belief in entrepreneurial sustainability. Our employees with their passion for technology, as well as our common responsibility for what shall be preserved, are always in the focus of all our actions.

This attitude finds its expression also in the faithful, cooperative relationship with our customers and suppliers who are an essential part of our culture. For them we use our specific knowledge and skills in order to develop progressive solutions, thus producing superior technical results. **That is the GEORG Way.**



## **machine tool** division

In close cooperation with our customers we develop and produce extraordinary tooling machines that perfectly fit any requirement. Creativity and superior knowledge lead to innovative and technically leading turnkey solutions for maximum long-term manufacturing results.



## **transformer** division

With proactive strong partnerships, using our expandable modular design and intelligent upgradable line control, we design state of the art process lines and equipment for the production of transformer sheet. We are world market leader because our customers rely on our technology.



## **manufacturing** division

Use our know-how and the range of mechanical machining that we offer in the areas of turning, drilling and milling. With our services, you will benefit from the many possibilities we offer with reliable GEORG quality in regard to your extended workbench.



## **finishing lines** division

Our finishing lines have been designed for sustainable efficiency: with extremely short set-up times, easy operation with minimum personnel and perfect, process-controlled operations. By our leading technical solutions we ensure our customers success in future.

## **The company divisions – grown by experience**

With the development of pioneering technologies we not only rely on years of experience, but inspiration to improve our processes by exploring new directions in different fields to deliver creative solutions.



'Modern lines must be designed to offer sustainable solutions. This is why we develop technologies for the future.'

Antonio Garcia  
Managing Director finishing lines division



# GEORG finishing lines

Score with **efficiency**

Proofed worldwide GEORG finishing lines represents a unique quality. Our customers trust in our know-how because we are able to deliver the answers for their questions to increase their efficiency. Perfect operability saves time. The settings are optimized and process controlled in detail. The automation for example of the coil transportation to the decoiler or the tool changing system ensures a high rate of productivity. Line load times are reduced to give a maximum of plant availability.

Due to the integration of new line parts and additional line combinations in GEORG quality the production results can be optimized and modernized to be economically profitable. We take care for seamless integration in your existing processes.

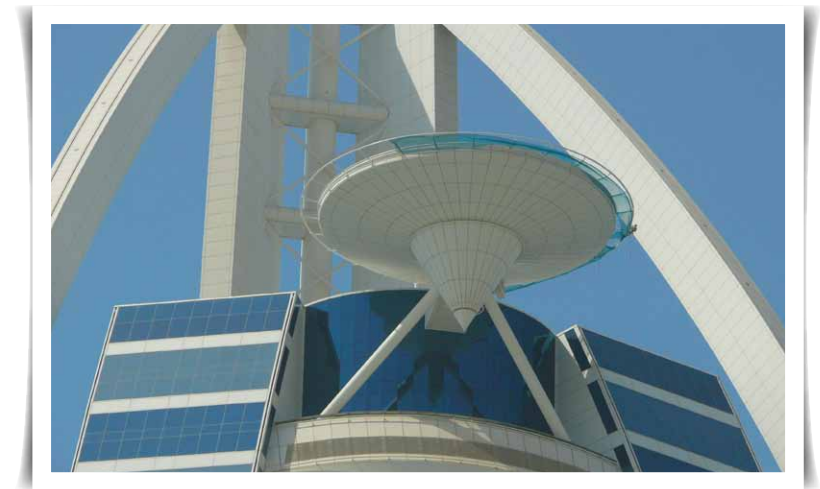


# ● Our markets

○ **Where do you meet our products?**  
Almost everywhere and at any time!

○ **Steel** – future market with tradition

We come across steel almost everywhere in everyday life. In addition to the classical application the innovative high strength steels also gain a more important role in today's usage. More than 60 years of experience in this traditional market is the basis for the development of GEORG lines, thus not only securing our customers' market position, but also enabling them to extend their lead in the market.





## Aluminium – market with diversity

Aluminium processing is a market with a variety of applications. High-speed production of thin material on the one hand, precise and powerful production of thick and wide material on the other. Maximum performance of man and machine is required for the production of thin material and plate and as much as for the production of materials for the aircraft or railway industry. With a strong partnership we take this hurdle with our lines into the future market.



## Non-ferrous metals – market for specialists

A market for special applications and with particular product properties. This requires solutions that are based both, on the customer's know-how and on the competence of the machine manufacturer. With this closed partnership of knowledge and competence GEORG develops leading technologies for complex problems.





GEORG

# Strong arguments

GEORG. This means passion for technology but as well:

- > Finishing lines from one source: 'Made in Germany' from the mechanical to the electrical system – for decades
- > Facing the future with our independent research & development department: for superior solutions for your benefit
- > World-wide available: at site with the GEORG specialists of our national and international subsidiaries and agencies by remote-access or via our 24 hour Service Hotline
- > Training to learn all about your GEORG finishing line in our customer centre
- > Modernization of your existing lines with up to date GEORG components

## **That's what characterizes our finishing lines:**

GEORG finishing lines are an answer for high productivity and efficiency of the production process:

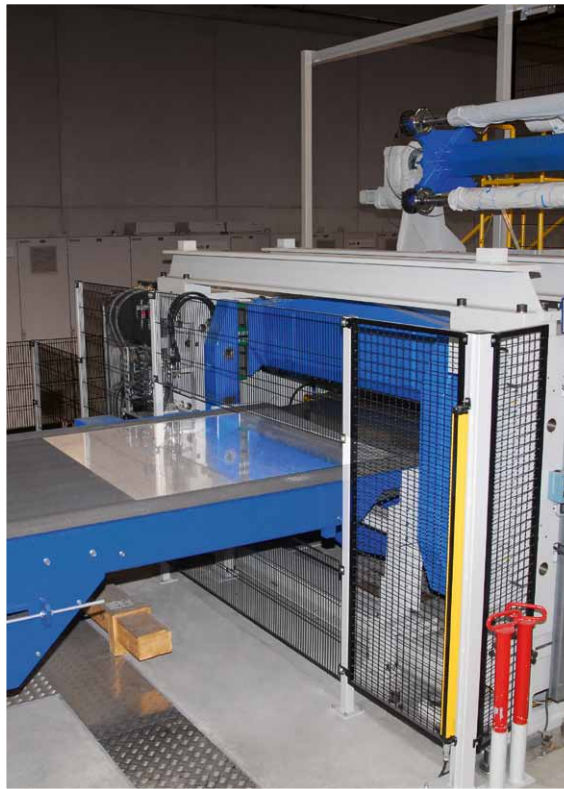
- > Superior production speeds
- > Short set-up times
- > High degree of automation
- > First quality line component
- > High line availability
- > Long lifetime
- > Low maintenance costs
- > Low energy costs

# Product range

Slitting lines



Cut-to-length lines



Multiblanking lines





Edge-trimming / inspection  
and recoiling lines



Packaging lines



Individual components



# Slitting lines



Recoiler of an aluminium slitting line



Slitting line in a steel service centre

## The most important parameters

- > Coil weights of max. 40,000 kg
- > Strip widths up to 2,800 mm
- > Line thickness ranges between 0.08 and 12.0 mm
- > Strip material speeds of more than 500 m/min.
- > Material strengths of more than 1,400 N/mm<sup>2</sup> and yield points up to 1,000 N/mm<sup>2</sup>
- > Production of slitted coils up to 50 slits





## Advantages for your production plant

- > High output/throughput and flow rates by rigorous minimization of tooling times and high production speeds
- > High level of cutting accuracy by means of high precision knife shaft bearings
- > Burr less cuts and high number of cuts with minimum deflection of the cutter shaft
- > High winding accuracy with increasing coil diameter by means of the movable braking unit for operation mainly without separating system at the coiler
- > Very gentle treatment of highly sensitive surfaces such as surfaces for vehicle parts, coated strips or for example annealed stainless steel by means of braking processes adapted to the material surface
- > Minimum power consumption by modern regenerative systems and by using drives of special efficiency grades



Slitting shear



Production with 50 cuts

# Cut-to-length lines

## Cut-to-length shears

... as continuously cutting

- > Eccentric shear
- > Drum shear
- > Flying shear
- > Eccentric swing shear

... or as start-stop design

- > Crankshaft shear
- > Hydraulic shear
- > Swing shear

## Stacker systems

- > Magnetic belt stacker
- > Vacuum stacker
- > Air cushion stacker
- > Bump door stacker



Cut-to-length line in a steel service centre

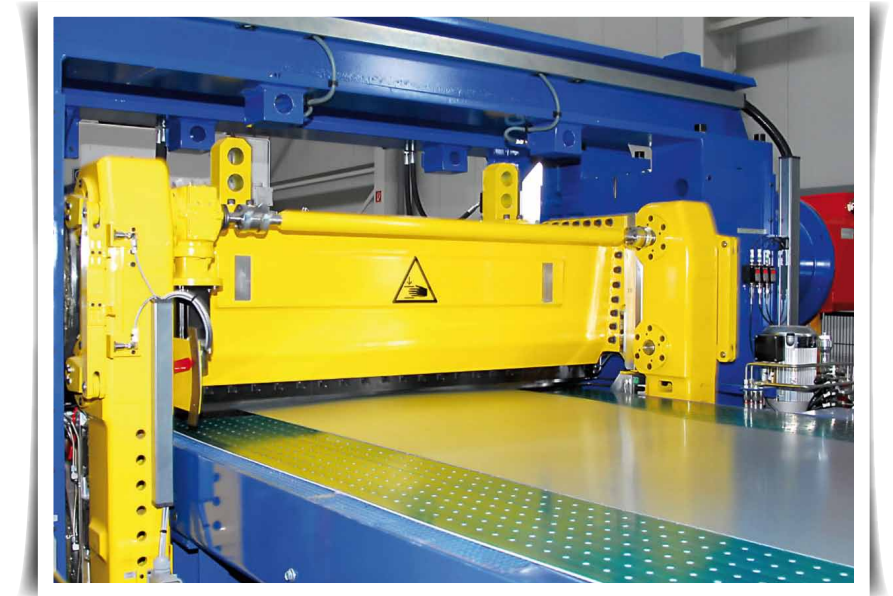
## The most essential parameters

- > Coil weights up to 40 t
- > Strip widths exceeding 2,800 mm
- > Lines for thickness ranges of less than 0.1 up to 15 mm and higher
- > Strip speeds of max. 100 m/min.
- > Material strengths of more than 1,400 N/mm<sup>2</sup> and yield strengths up to 1,000 N/mm<sup>2</sup>



## Advantages for your production plant

- > High output/throughput and flow rates by rigorous minimization of tooling times and high productions speeds
- > Packing of sheet stacks by semi- and fully-automatic strapping systems within one packaging process, thus avoiding accumulation of stacks
- > Extremely good flatness of sheets by using 'four-high' and 'six-high' levellers
- > Elimination of edge waves and center buckles by approaching rows of back-up rolls in the levelling machine
- > Exact cutting accuracy and angularity of sheets
- > Cutting with little burr by the edge-trimming shear and the cut-to-length shear
- > High stacking accuracy by using individual stacking systems
- > Gentle treatment of high-sensitive surfaces such as surface for the automotive industry by special transport and stacking methods



Cutting



Levelling



Stacking

# Multiblanking lines



Eccentric shear for four slits in operation



Cut-to-length line for cutting multiple strands (multiblanking line)



High performance roller feed

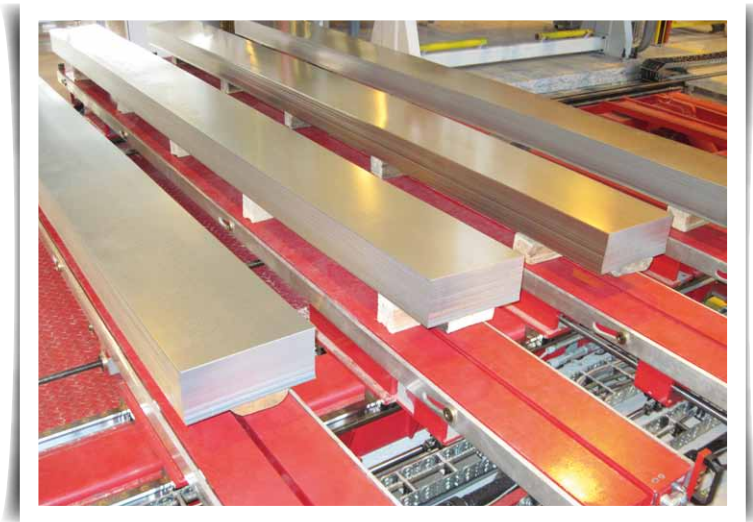
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- > Material strengths of up to 1,400 N/mm<sup>2</sup> and yield strengths up to 1,000 N/mm<sup>2</sup>
- > Number of strips: 1 – 5

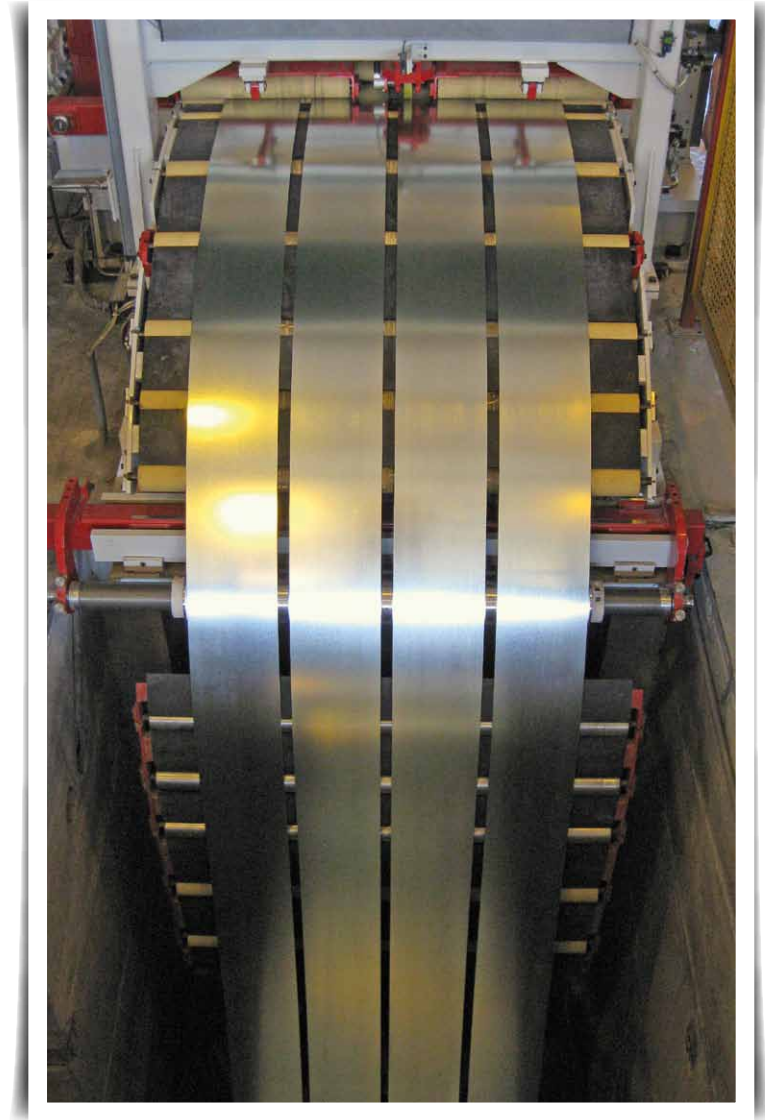


Cut-to-length lines for multiple strand operation, consisting of

- > Coil storage system and coil car
- > Decoiler with outboard bearing
- > Infeed and pre straightening with cropping shear
- > Leveller with cassette quick changing car
- > Strip surface inspection
- > Slitting shear with cutter assembly frame
- > Loop pit
- > Roller feed
- > Eccentric shear with run out conveyor belt
- > Magnetic belt stacker with stacking lifting tables
- > Pallet and stacker roller conveyors with mechanical handling
- > Packing of stacks via automatic packaging systems

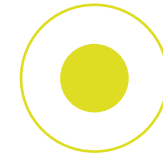


Perfect stacking results with high-precision separation of the stacked sheets



Exact guiding of the strands in the exit roller basket

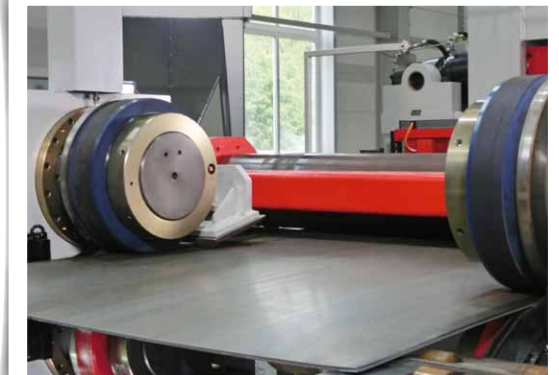
# Edge-trimming-, Inspection- and Recoiling lines



Edge-trimming line for aluminium with production speeds >1,800 m/min.



High speed edge-trimming shear (design + realization)



Edge-trimming shear for hot and cold rolled steel



## Inspection lines

- > For detection of strip surface defects by visual and automatic inspection systems
- > Possibility of eliminating strip defects with or without strip tension
- > Repair of coils by removal of defects and use of up-to-date welding machines
- > Edge-trimming of strips with faulty edges by extremely low cutting tolerances
- > Rewinding of solid coils by constant strip tension without offset
- > Minimization of scrap by use of steering roll systems and strip flow systems
- > Reduced power consumption by modern regenerative systems and use of drives in special power efficiency grades



High speed edge-trimming line for thin aluminium coils



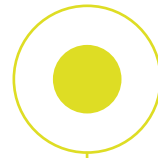
## The most essential parameters

- > Coil weights up to 40 t
- > Strip widths exceeding 2,100 mm
- > Line thickness ranges between 0.1 and 6.0 mm
- > Medium production rate: 300,000 t/year depending on product mix and strip material
- > Strip speeds > 1,800 m/min.



Inspection line for hot-dip galvanized cold rolled material

# Coil packaging lines



Coil separation with coil tilting table (down ender)



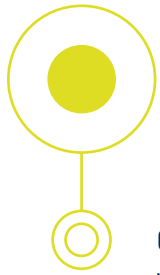
Coil stacking with mandrel clamping in the coil eye and outside gripper

A high throughput and gentle handling of the slit coils are provided through our packaging lines. For all requirements profile we have the right solution.

- > Heavy mill design
- > Modular design for perfect integration
- > Strapping at the turnstile
- > Downending of 90° is possible
- > Strapping through the coil eye
- > Integrated sorting and stacking management
- > Storage and feeding of pallets
- > Weighing of single coils and packages
- > Manual or automation strapping of coils
- > Several roll configurations are possible (with or without coating)

Due to individual parameters the GEORG coil packaging lines are able to be integrated in already existing lines to modernize and optimize the productivity.





# Stack packing lines

Our conveying and packing systems reduce time and save money while cutting GEORG cut-to-length lines set standards for performance, productivity and accuracy.

- > Integrated weighing station
- > Heavy mill design
- > Palette conveying system and stacking transportation facility
- > Conveying via chains and rolls
- > Manual and automation of transversal and longitudinal strapping
- > Integration of foil packing systems
- > Optimal integration in existing production processes due to flexibility and productivity
- > Angle stations as combined roller/chain conveyor
- > Stack separation device for multiple blanking operation
- > Stacking of stacked pallets
- > No limits for the upstream system because of individual design



Stack packing line with magnetic belt stacker



Automatic transversal strapping of the finished material



# Individual components

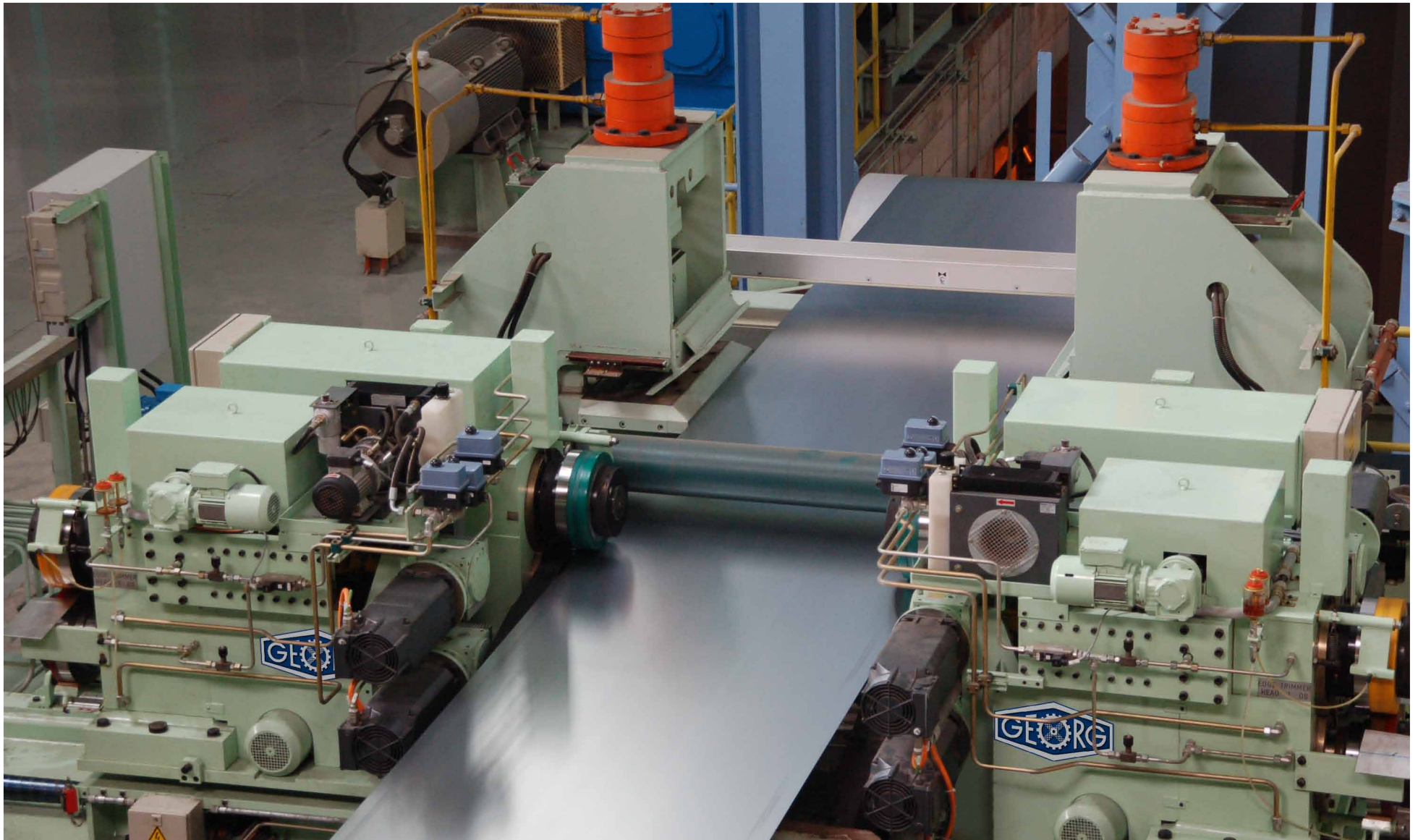


Of course, GEORG offers also individual components for line upgrades, revamps or modernizations.

- > Decoiler, fully expanding for various coil inner diameters, with and without change shafts
- > Slitting shear with tool changing device for fully or semi automatic tool change
- > Edge-trimming shears in single or double head design with scrap chopper/scrap baller
- > Levellers for a variety of sheet thicknesses in cassette change system
- > Cut-to-length shears such as eccentric shears, drum shears, crankshaft shears, flying shears, etc.
- > Stacker systems such as magnetic or vacuum stackers, air cushion stacker or bump door stacker, adapted to the material requirements



Leveller in a cut-to-length line



Turret type edge-trimming shear integrated in a galvanizing line



Partnership –  
Confidence in employees,  
customers and suppliers

# Thinking together

Leading technology is based on **training service and extended vocational education**

We not only want to have satisfied customers but we also want to inspire with our performance. This is only possible if people work together very closely and in a spirit of trust at all levels. We are living this all the way from planning, up to the practical implementation and service – with employees, customers and suppliers.



GEORG does not only inspire with new machines and lines. We are also a competent partner for modifications and replacement of existing lines. We individually attend to our customers in our in house training centre. Our specialists realize courses about lines and instructions for use and maintenance. In addition GEORG offers a personalized, direct and comprehensive assistance 24 hours worldwide.

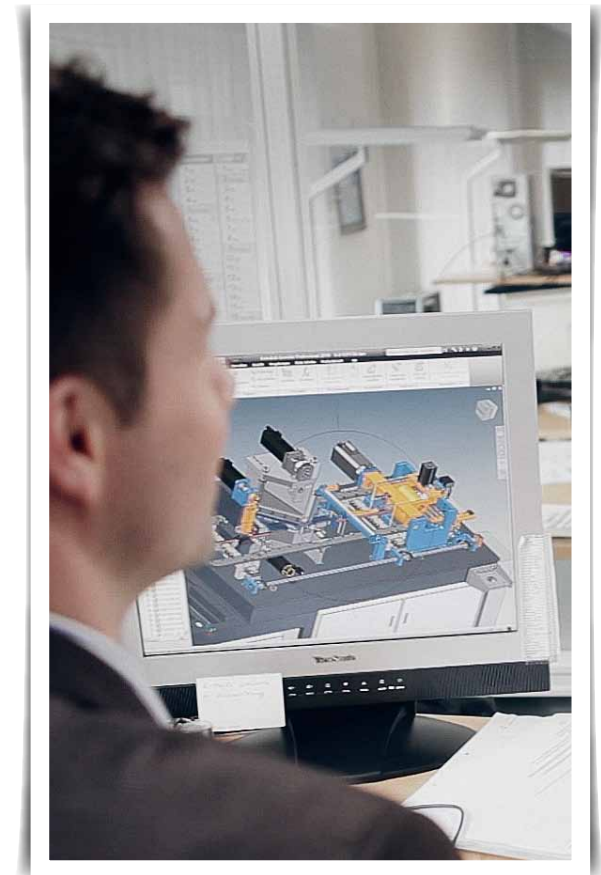
All this is only possible with highly motivated and qualified specialists. The constant vocational training and education of our employees in our in house academy is the basis for a common future. That is the reason why we permanently meet our requirements: GEORG – mit uns technisch überlegen.

# ● Create future

## ○ Research and development – mit uns technisch überlegen

Companies need innovations. They are the power for technical progress. GEORG has a passion for technique which is combined with experience, knowledge and creativity.

Equipped with these good tools, GEORG does state-of-the-art research. We always listen to the customer, develop and place extraordinary goods on the market. Only the one who is in contact with customers and suppliers can optimize and improve its own processes, create value and design more efficient line concepts. Sometimes customers and their challenges have to be solved but also the pioneering spirit of our own engineers takes us further or even both together. This leads to technical solutions which bring our customers forward and puts them in the position to be technically and economically predominant and superior.



superior **technology** experience  
creativity responsible individual components  
individual complete solution visionary **culture** efficiency solutions **progressive** precision  
impassionate confidence **future** courage world-wide finishing lines division  
**knowledge**



mit uns **technisch überlegen**

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