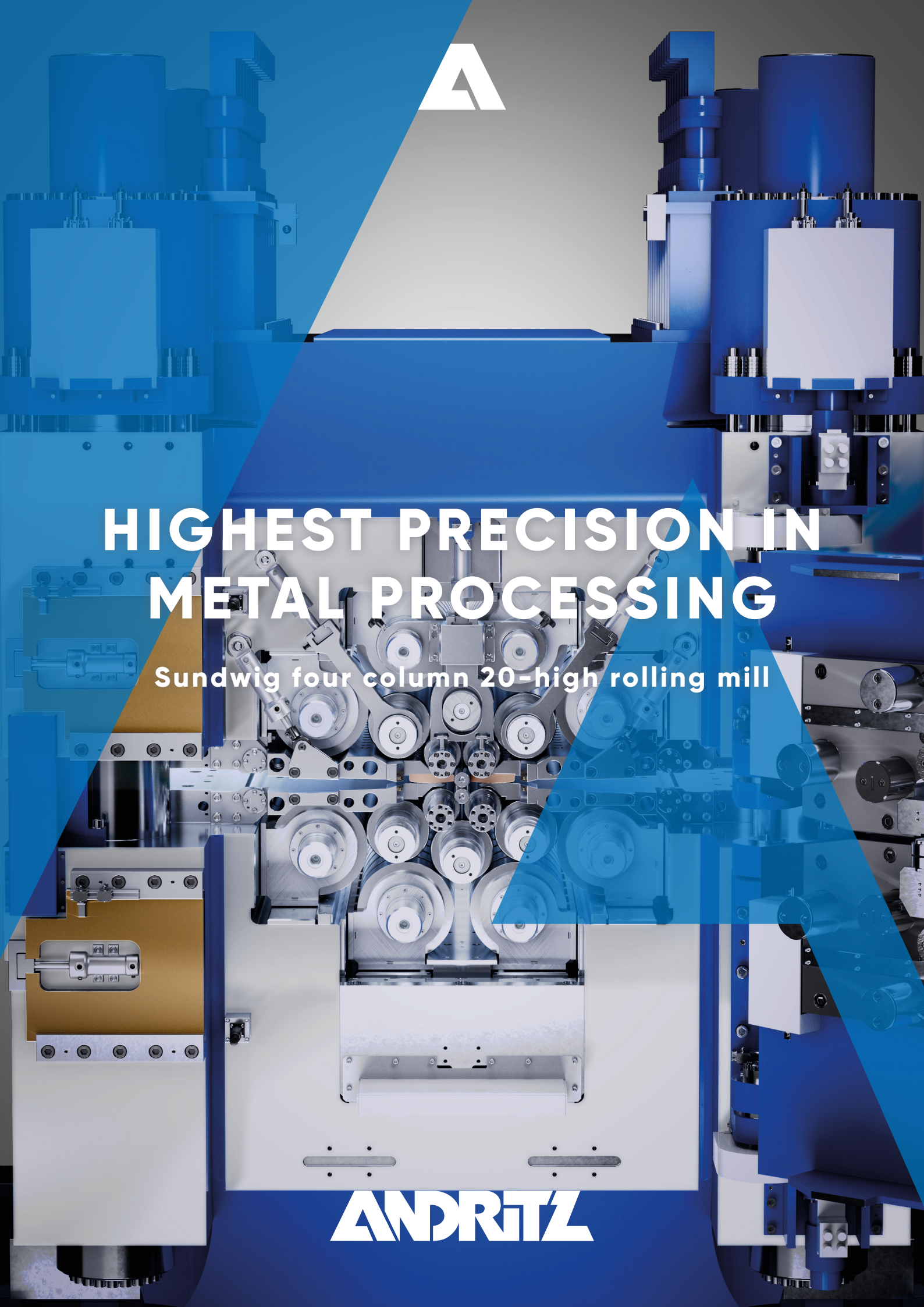
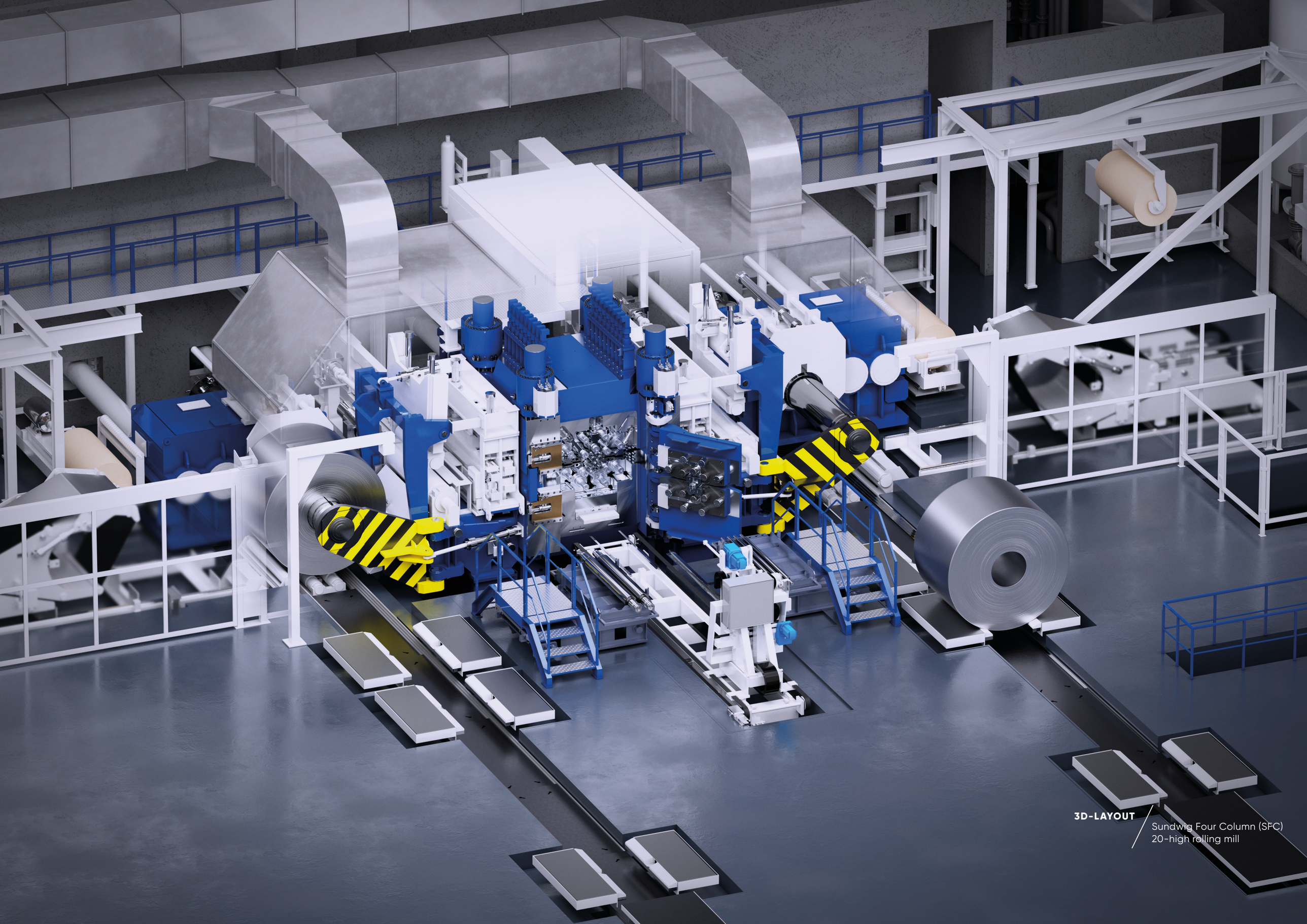


HIGHEST PRECISION IN METAL PROCESSING

Sundwig four column 20-high rolling mill

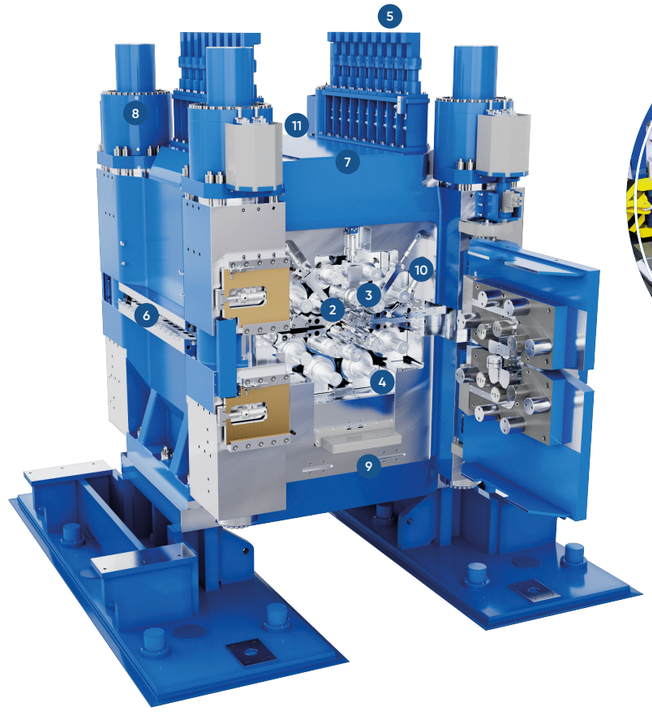
ANDRITZ

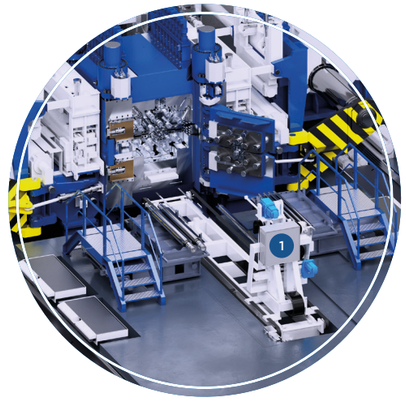


3D-LAYOUT

Sundwig Four Column (SFC)
20-high rolling mill

Your benefits





1. **Automatic roll changing system:** work rolls and intermediate rolls can be changed automatically
2. **Quick and large roll gap opening:** strip feeding can be executed easily and without taking out the work rolls
3. **Wide work roll diameter range:** longer roll lifetime resulting in lower operating costs
4. **Cost efficient back-up axles:** simple design saves time in assembling and installation resulting in lower operating costs
5. **Best flatness performances:** independent roll bending, axial shifting and tilting for consistent strip shape. Independent thickness regulation due to consistent roll geometry.
6. **Higher strip cooling performance:** impingement jet nozzle system to achieve high cooling performance. Less circulating oil resulting in lower operating costs.
7. **Optimized mill housing:** the lower and upper mill housings are optimized by FEM calculation resulting in less deformation
8. **Best thickness performances:** high dynamic thickness gauge control with extremely short control cycles by direct hydraulic screw-down
9. **Exact passline adjustment:** wedge-type adjustment in the lower mill housing.
10. **Quick and easy maintenance:** best accessibility to the rolls due to wide opening of the upper mill housing and simple design of the back-up axles resulting in less production breakdown
11. **High degree of automation:** easy possible due to optimized and simple mill design

WATCH THE VIDEO
and find out more about the Sundwig four column 20-high rolling mill!

AUTOMATIC ROLL CHANGING SYSTEM

The proven, automatic roll changing system has been used since decades in almost all ANDRITZ rolling mills. With the roll-changing robot, the work rolls and intermediate rolls can be changed automatically, preventing roll damaging by exact positioning of the rolls in the roll cluster.

QUICK AND LARGE ROLL GAP OPENING

The 20-high mill has direct hydraulic gap control as well as wedge-type pass line adjustment. With this direct setting, the roll gap can be opened large very quickly. Due to the large roll gap opening it is not necessary to take out the work roll for strip feeding.

WIDE ROLL DIAMETER RANGE

Due to the wide diameter range of the work rolls a long lifetime of the rolls is possible. Thanks to the direct roll gap setting in combination with wedge-type passline adjustment, the rolls can be matched easily in the 20-high mill cluster.

COST EFFICIENT BACK-UP AXLES

Design of the back-up axles has been optimized and simplified. Due to the small number and simplified design of the back-up shaft, rectangular saddle and ledges, the costs and the maintenance effort are reduced. A very fast changing time is ensured for the back-up axles thanks to the simple push-in/pull-out system.

BEST FLATNESS PERFORMANCE

The ANDRITZ 20-high mills are designed with well proven independent shape actuators – mill upper half tilting, axial shifting in push-push design and an efficient roll bending system. The bending is independent from the tilting device.

COST SAVINGS DUE TO HIGHER STRIP COOLING PERFORMANCE AND HIGHER ENERGY EFFICIENCY

In addition to all the technical advantages of the 20-High mill, the improved heat transfer is an additional economic advantage for the mill operator. This results in rolling oil savings in the range of 30% for the same production program. Due to less cooling oil on the strip, it is easier to clean the strip. As a result, less pumping capacity is required as there is less oil volume to be circulated. This energy saving leads to a reduction in operating costs.

OPTIMIZED MILL HOUSING

The lower and upper mill housings are optimized by FEM calculation. Minimized deformation of the mill housing and the mill posts because of the Sundwig Four Column mill design.

BEST THICKNESS PERFORMANCES

The 20-high rolling mill has high dynamic and extremely short control cycles with step response time of <12 ms.

EXACT PASSLINE ADJUSTMENT

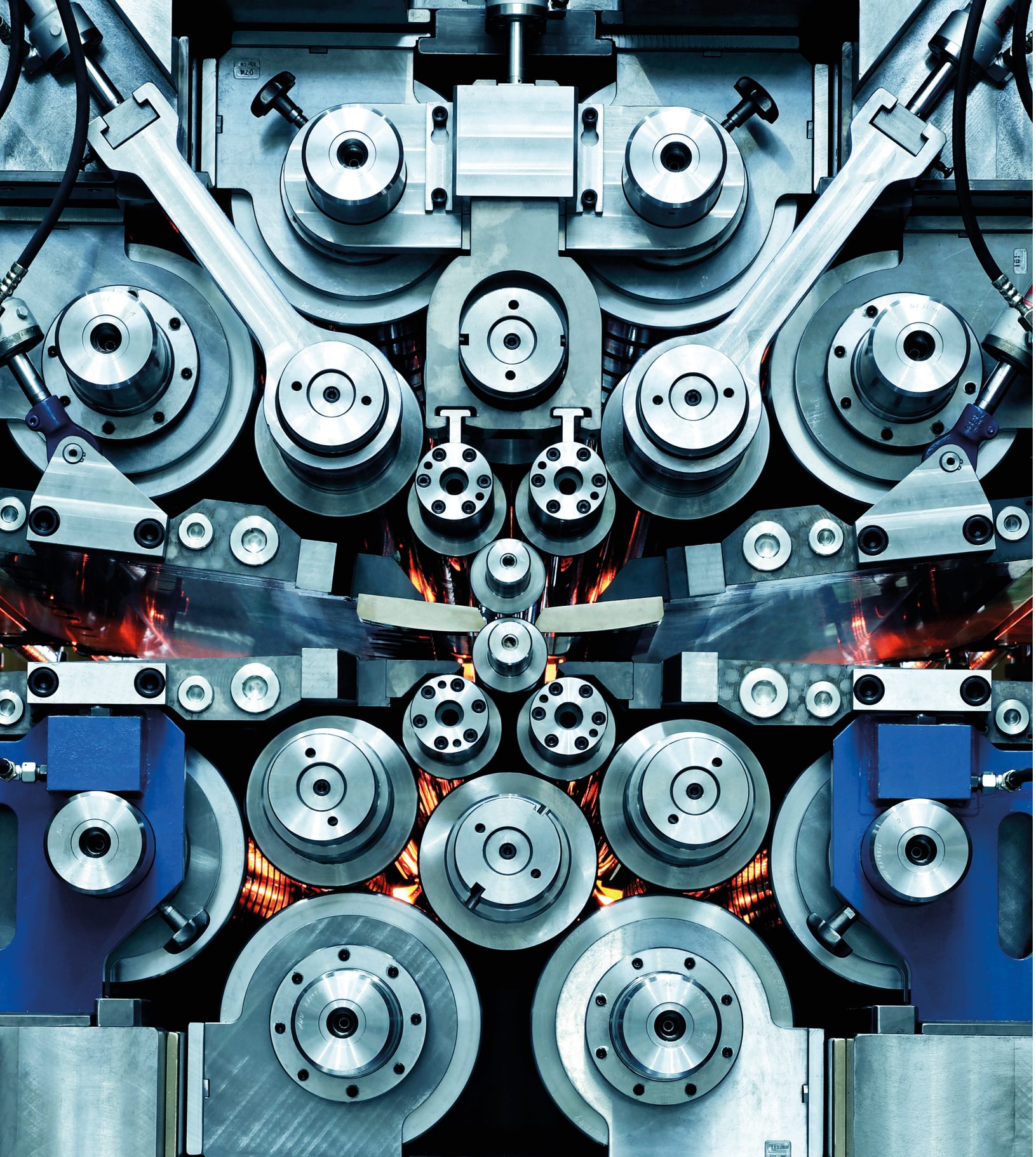
After roll changing, an exact passline can be ensured by high-accuracy wedge-type adjustment in the lower mill housing. Long stroke of passline adjustment covers the full range of roll diameters.

QUICK AND EASY MAINTENANCE

The maintenance of the 20-high rolling mill is optimal due to the wide opening of the roll gap and with its good accessibility. The maintenance of the back-up axles can be easily carried out due to the simplified rectangular design.

HIGH DEGREE OF AUTOMATION

The automation of the 20-high mill is easy possible due to optimized and simple mill design. Less downtime during rolling due to optimized pass schedule calculations, automated and optimized rolling process and automated auxiliary processes e.g., roll changing, coolant supply and filter system, hydraulic system, sleeve handling, paper handling and pup coil handling.



>333 YEARS engineered success made in Germany

>120 20-high rolling mills installed

>60 YEARS of experience and innovation in four column design

ANDRITZ METALS

ANDRITZ Metals Processing is a global leader in providing cutting-edge solutions for the production and processing of cold-rolled strip made of carbon steel, stainless steel, aluminum, and other non-ferrous metals. Our innovative technologies and comprehensive services ensure that we support our customers at every stage of the plant life cycle, from initial setup to ongoing maintenance and optimization.

We combine our deep industry expertise with advanced automation and digitalization to help our customers achieve peak performance and sustainable growth. Our service business is dedicated to maximizing the efficiency and longevity of your equipment, ensuring you stay ahead in a competitive market.

ANDRITZ. FOR GROWTH THAT MATTERS.

GERMANY
ANDRITZ Metals Germany GmbH
p: +49 2372 54-0
rolling.mills@andritz.com

ANDRITZ.COM/METALS

JOIN US ON SOCIAL MEDIA