We get things moving.
Innovative extrusion
and forging lines
We live in a highly mechanised society. The conveniences we enjoy today and our infrastructure would be inconceivable without extruded and forged products. For generations, industries like the automotive, aerospace, shipbuilding and offshore sectors, as well as architects and manufacturers of electrical equipment and furniture, have been using parts that were extruded or forged with machinery and plant made by SMS Eumuco.

Progress founded on tradition
SMS Eumuco GmbH is an internationally leading manufacturer of machinery and equipment for forming and finishing steel and non-ferrous metals. Offering a wide range of machines and wrap-around services, we are a partner to all those engaged in closed-die forging, extrusion, ring and closed-die rolling, and the production of cold-finished steel. SMS Eumuco’s roots reach back to the dawn of mechanical engineering in Germany. For more than a century we have actively promoted advances in extrusion and forging technology. United under our corporate umbrella, renowned names in massive forming are writing new chapters in their success stories. Our four main divisions operate under the long-established brand names of Schloemann Extrusion, Eumuco Hasenclever Closed-Die Forging, Wagner Banning Ring Rolling, and SMS Eumuco Cold-Finishing.

Convincing design approach
High productivity, low operating costs, low component wear, maximum reliability, operator friendliness, low maintenance requirement – these are the parameters that govern our design philosophy. By consistently applying this approach, we maximise the cost-efficiency of our machinery and plant and give our customers a competitive edge.

Tailor-made solutions from a single source
Satisfied customers are our best reference and the yardstick for quality in everything we do. SMS Eumuco machines and equipment are therefore customised to meet user requirements. If preferred, we can also offer standardised components or modular designs. We take account of future investment projects right from the start of the engineering phase, thereby fulfilling customer expectations in the best possible way. No matter how diversified your wishes and requirements are, you can expect all of them to be met by what we offer – tailor-made solutions from a single source. Through this holistic approach we generate cost advantages for our customers, especially regarding coordination and interface management.

Efficient project management
All phases of project management are integrated in an optimised process chain – from contract award through design to series manufacture of the equipment. Function tests and pre-assembly of machines prior to shipment assure a high degree of reliability. Highly qualified staff make sure that machines and equipment are rapidly erected and commissioned at the customer’s site.

Internationally leading expertise
Our corporate structure is aligned to competitive performance. We have therefore expanded our competence spectrum by integrating mutually complementing, internationally based companies. Our company therefore combines the flexibility of a medium-sized enterprise with the sound backing of the globally active SMS Group.
We speed up your processes.

As major supplier to all branches of the transport industry, SMS Eumuco’s closed-die forging machinery has excellent prospects for tomorrow’s markets. There are tasks that only we can solve in a rational, effective and economic way – with the right technology, quality, reliability and at the right price.

Our extensive range of products and services is based on experience accumulated during a rich corporate history. We advise you in selecting the most economic forging process for your application and design the corresponding equipment configuration. We can supply main forging presses and all preforming and sizing machines as well as special-purpose equipment. Moreover, you can rely on us to automate single machines and integrate them to create fully automatic closed-die forging lines. Training and support of your operating personnel and rapid and reliable service are all part of the package.

We have also devised a sophisticated modernisation programme to revamp existing lines and machines, making them fit to meet changing market needs and product requirements. Wherever reliability, precision and safety are called for, you’ll find our machines and equipment. Blue-chip technology that works, and works, and works ...
Eumuco Hasenclever Closed-Die Forging

Excellence in closed-die forging calls for precision solutions in all areas. We supply presses in all designs and sizes for a wide variety of materials (steel, aluminium-titanium alloys, special materials), preforming and sizing machines, and automation equipment. This broad array of products coupled with customer-oriented service makes us the right partner for all applications in closed-die forging.

Our range of products and services:

- Eccentric forging presses
  - Integrated ejector systems
  - High rigidity, high number of strokes, short pressure contact times

- Wedge presses
  - High transversal and tilting stiffness
  - Large-surface wedge, horizontally displaceable between machine frame and ram

- Screw presses of all kind:
  - either clutch-operated, friction-screw operated, or with direct electric drive
  - Programmable blow sequences
  - High force and energy availability

- Mechanical upsetters with horizontally split dies

- Drop forging hammers and key drivers

- Preforming and sizing machines
  - Hydraulic presses
  - Crank presses
  - Forging rolls
  - Cross rolls
  - Electrical upsetters

- Special-purposes machines
  - Twisters and multi-ram machines

- Automation equipment
  - Automatic walking beam system
  - Robots with linear motion drive
  - Manipulators
  - Automatic loading devices

- Accessories
  - Ejector systems
  - Dies and bolsters
  - Temperature-controlled bolster systems
  - Quick-change devices
  - Die spraying devices

- Process technology for specifying forming stages and forging dies

- Press safety control EPSS
  - Easy integration into line concepts via bus-oriented networking
  - Revamping and modernisation of existing equipment to increase productivity and availability

- PICOS, based on monitoring and operating consoles of PLC or industrial PC suppliers, delivers information on operating status, measurements and machine parameters; PICOS++ as an enhanced version

- ViTeSy Video Teleservicing System for targeted remote diagnosis of machine controls

- Original replacement parts

- Modernisation (conversion, extension, automation of own and other makes)

- Technical sales support

- Safety tests, certificates of conformity for individual machines and integrated process lines

Interlinking of these components creates fully automatic forging lines and self-contained systems for maximum performance and economy – top-flight, world-class technology.
Cross roll QW 850/2 Automatic eccentric forging press AMP 1600

Robot MEE

Broad spectrum of applications for closed-die forgings:
- Automotive
- Utility vehicles
- Earth-moving machinery
- Aircraft
- Turbines
- Machine construction
- Railways
- Mining
- Agriculture

Auto and automotive parts.
We safeguard your product quality all along the line.

Customers in the extrusion industry can choose from a complete range of products – from the tried and tested extrusion press to automatic runout and handling equipment, billet heaters with ancillary devices, heat treatment lines, and production control and monitoring systems. No matter whether your project involves a new machine or modernisation of old equipment, we can engineer and supply everything you need from a single source.

Our customers have many diverse requirements, which we fulfill with tailor-made solutions that answer market needs. We aim to achieve the best possible material utilisation rate, maximum energy efficiency, minimisation of dead-cycle times, and – above all – high and reproducible product quality.

High-performance mechanical equipment has to be matched by appropriately designed software. We used advanced technology to integrate all equipment into high-performance production lines. We develop intelligent information and control systems to monitor and optimise processes. These assure consistently high and documentable product quality, allow continuous improvement of productivity through efficiency calculations, and therefore ensure that our customers can continue to operate successfully.
Schloemann • Sutton • Innse Extrusion Presses

As a supplier of world-class rod and extrusion presses, our offerings in this area are correspondingly varied. We are the only manufacturer capable of offering the technology for all extrusion processes, materials and alloys.

Our range of products and services:

- Rod and tube extrusion presses for light metals, in conventional and short-stroke design
  - Minimal dead-cycle times
  - High availability
  - Low operating costs through energy-saving control concepts

- Rod and tube presses for heavy metals, incorporating advanced die technology and fully automatic handling
  - Fully automatic billet loading
  - Fully automatic tool changing, cleaning and lubrication
  - Automatic stem and container changing
  - Automatic sticker removal

- Plant technology for direct and/or indirect extrusion processes

- Solutions for special applications, materials and alloys, such as anode production, extrusion of steel, titanium, silver, magnesium

- Runout equipment for light- and heavy-metal extrusion lines that meet the most exacting quality requirements while boosting productivity
  - For light metals: double puller systems, on-the-fly cutting of sections, high-intensity section cooling, stretchers, heavy-duty saws, palletising equipment, automatic section basket handling systems
  - For heavy metals: underwater pullers, multiple pullers, multiple coilers, strip/tube coiler systems, high-intensity section/wire cooling units, on-the-fly cutting of sections, bundling systems

- Customer-specific material flow solutions

- Modernisation concepts for existing extrusion lines based on extensive experience, even of other makes of equipment

- Design and supply of complete extrusion lines

- Consultancy and engineering for optimal line configuration and optimal material flow with calculation of production results

- Control systems and technology software:
  - PICOS.NET/HMI (human machine interface) offering utmost user friendliness, a basic prerequisite for optimum productivity by statistical evaluation of the line status, minimisation of downtimes through diagnostics and online billet optimisation
  - MIDIS (production planning system) guarantees integrated on-line process control and monitoring including documentation of quality conformance, manufacturing control system for the entire extrusion plant, optimised process sequences

- Interfaces to all common PPS systems
  - CADEX to satisfy the highest quality demands while increasing productivity and reducing tool-related costs through balanced tool loads
  - COOLEX for controlled cooling of the extruded product through calculation and on-line simulation of the heat transfer between the section and the cooling medium
  - HEDIS hydraulic-electrical supervisory and training system

- Services
  - Press tuning to restore the efficiency of existing extrusion equipment and to maintain the efficiency of new built lines
  - Machine inspections (ultrasound, surface crack testing, etc.)
  - FEM analyses

Custom engineering of your plant will ensure high product quality, high productivity, efficient utilisation of resources and a rapid payback on investment.
Central control and information cabin for an extrusion line

Conventional extrusion line, SMS Sutton design

Extrusion press with stem shifting device, SMS Innse design

Runout system for light metal sections

Broad spectrum of applications for extruded products:
- Automotive
- Utility vehicles
- Rail vehicles
- Aircraft
- Shipbuilding
- Machine building
- Valves and fittings
- Electrical equipment
- Furniture
- Construction industry
Use our leading edge
to your benefit.

Two internationally ranking companies with a proud history form the Wagner Banning Ring Rolling Division of SMS Eumuco GmbH. The names Wagner and Banning stand for convincing engineering and sophisticated technology. International market trends and growing customer expectations regarding technical support, comprehensive consultancy and top quality were the factors that brought these two companies together. As a result, our customers can draw on a globally unique source of knowledge and capabilities.

The rolling of rings and wheels demands very special engineering and technological competence. Our machines and rolling plants are equal to the challenge. From initial layout through to installation, we design and build complete ring, closed-die and wheel rolling machines that meet the specific needs of our customers. All of this naturally comes with the necessary forming expertise. Over 500 ring rolling machines in all sizes and more than 100 complete plants provide ample evidence of Wagner Banning’s capabilities. Backed by SMS Eumuco, this team plays an active part in shaping the future.
Wagner Banning Ring Rolling

Our Ring Rolling Division has supplied more than 500 ring rolling machines for outer diameters ranging from 100 to over 9000 mm to customers all around the world. As the global market leader, we consider it both a duty and a challenge to contribute to our customers’ success by providing comprehensive know-how, advanced technology and premium service - now and in the future.

Our range of products and services:

- Ring rolling machines
  - Radial-axial ring rolling machines
  - Radial ring rolling machines
  - Multi-mandrel ring rolling machines
  - Ring diameters from 100 mm to over 9000 mm
  - Radial and axial roll forces up to 10,000 kN and more
  - Workpiece weights up to 50,000 kg and more
  - Progressive measuring sensor technology, including laser-based devices to measure the ring outer diameter
  - Automatic process control with CARWIN operator interface

- Radial and axial closed-die rolling machines
  - Partial forming through die inclination
  - Rotation of both dies
  - Forming force only 5-20% of that required by a conventional forging press, depending on workpiece size and configuration
  - Rolling in closed dies for high shape accuracy, close tolerances, high surface quality

- Wheel rolling machines
  - Production of top quality railway wheels with full machine capacity utilisation
  - Automatic setting of rolling sequences to fulfil technical specifications
  - Minimum programme change times

- Ring expanders
  - To improve the accuracy of rolled rings
  - For strain hardening of aluminium alloy rings, for example
  - Automatable expanding procedure
  - Expanding directly from rolling heat

- Ring blank presses
  - Pressing force up to 80 MN and more
  - Equipped with all auxiliary devices for ring blank production
  - Manual to fully automatic ring blank manufacturing

- Engineering and supply of complete production lines

- Special-purpose machines, such as a counter roller flow forming machine for production of ARIANE V booster casings

- Technology-oriented software systems
  - CARWIN (Computer Aided Rolling under Windows)
  - ROLLTECH RINGS (technological support)
  - PROFILE (profile rolling technology)
  - Absolute digital measuring and numeric-graphic display of process and machine parameters on ring rolling machines (ROLLTRONIC), ring blank presses (PRESSTRONIC), and ring expanders (EXPANTRONIC)

- Service and consultancy for new and old equipment

Rely on our machines to give you that competitive edge:

- High-quality precision products
- High material utilisation rate
- Low investment costs
- Low manufacturing cost per unit
- High energy-efficiency
- Eco-friendly production
Radial-axial ring rolling machine, type RAW 160(200)/125(160)-300Q/630

Gearmg produced by axial closed-die rolling

Anchor flange produced on a radial-axial ring rolling machine, type RAW 315(500)/250(300)-4000/1700

Theory and practice: ROLITECH RINGS technology software

Broad spectrum of applications for seamlessly rolled rings:

- Automotive
- Railway
- Aerospace
- Transport systems
- Earth-moving equipment
- Antifriction bearings
- Off-shore industry
SMS EUMUCO
Innovative extrusion and forging

COLD FINISHING

Benefit from our expertise in solving demanding tasks.

Faster, more precise, less expensive – the demands made on the quality of bright steel are constantly growing. The cold-finishing process requires extreme precision of the machinery and plant used. At the same time, a high degree of economy and rapid payback are just as essential. Conflicting requirements? Not for us!

From long years of experience we are completely familiar with our customers' cold-finishing value chain. We offer you a comprehensive range of products – from single machines through to complete machining lines.

Service from the word go. From consultancy and engineering through to commissioning, manufacturing support, operator training, and after sales service.

We know that high plant availability and rapid set-up, flexibility and fast-response maintenance and repair are crucial for cost-efficient production. To meet these needs, we maintain an international presence, with engineering, production and service bases in Germany, Italy and the USA.

What's more, the support, maintenance and modernisation services we offer are not confined to our own machines but extend to all the makes on the market. Our foremost goal is to meet our customers' needs and to work with them to achieve the optimum solution in each case.
SMS Eumuco • Sutton • Landgraf Cold Finishing

Peeling, straightening, polishing, grinding, and more – convincing plant technology for cold-finished bar steel. No matter whether you need a single machine or a complete machining line, we are the partner of choice when it comes to producing high-quality bright steel.

Our range of products and services:

Centreless peeling machines
Our high-performance peeling machines turn hot-rolled round bars into perfect bright steel. They are capable of processing diameters from 7 mm to 350 mm to ISO IT 8/9 tolerances and with a surface finish of $R_a = 2 \mu m$ bzw. $R_z = 10 - 15 \mu m$, respectively.

- Feed and guide units, cutter heads and clamping jaws to cover the entire range of work operations
- Feed unit
  Two pairs of rolls (four prismatic rolls) self-centring bar clamping, rolls with individual servo motor drives, steplessly adjustable independently of the main drive
- Front guide unit
  In working position, the complete front guide unit and the feed unit are clamped hydraulically to the machine frame. Easy and rapid tool changes through joint axial shifting of both units
- Rear guide unit
  Maximum rigidity; using rollers or guiding shoes

Two-roll and multi-roll straightening machines
We set the standards in straightening technology. The high rigidity of our straightening machines ensures best straightening results with an accuracy of 0.1 mm to 0.3 mm/m.

- New twin guide for top roll yoke
- Zero-clearance lower guides. No tilting or shifting of the top straightening rolls thanks to hydraulic clamping of the top and bottom roll yokes during the straightening process
- Motorised adjustment and centring of the two guide gibs from the control console; removal of straightening roll yokes according to the "air cushion" principle

Milling and chamfering machines
SMS Eumuco milling and chamfering machines guarantee accurate downstream processing of the bars through perfectly plane and rectangular milling of the bar ends, precisely chamfered edges, and closest tolerances.

- Only one cutter head for milling and chamfering; vertical positioning of milling head for size adjustment and milling stroke
- No further size adjustment needed for clamping or cross transfer

Centreless grinding machines
Our grinding machines meet the most exacting surface-finish requirements for bright steel products.

- Two grinding wheels used exclusively for machining work
- Extremely stiff grinding wheel mounting and adjustment
- Freely selectable feed rate per bar revolution

Bar handling equipment
You want to reduce nonproductive times? We also master the handling technologies for an optimum material flow. We’ll team up with you to plan the ideal production sequence for your application.

Worldwide service
Our product range is supplemented by training, on-site manufacturing support, maintenance and repair. We also modernise cold-finishing equipment of all kinds.
Premium quality for cold-finished steel in automotive applications, e.g.

- Springs, nuts and bolts
- Piston rods
- Spark plugs
- Valves and valve stems
- Shock absorber rods
- Antifriction bearings
- Lock components
- Stabilisers
SERVICES

Full-service package.

Our corporate philosophy revolves around one central aim: service to the customer. From the initial idea through to machine hand-over and throughout the useful life of the equipment, we cooperate closely with our customers. We want your investment to generate measurable economic success. To make sure your facilities continue to operate with utmost reliability and deliver optimum performance, we provide fast and flexible customer support and rapid delivery of high-grade replacement parts and assemblies. Highly trained staff from a variety of disciplines guarantee professional handling and execution of your projects.

Overview of our products and services:

Technical customer support
Our service team offers comprehensive, rapid and professional support for new and existing machinery and equipment. The services we offer include:

- Pre-assembly in our facilities, including tests and trials
- Testing and acceptance (internal)
- Installation, commissioning and acceptance
- Dismantling, re-erection and commissioning of machines during site relocation
- Inspection, maintenance and repair following specified protocols

Replacement parts
We supply original-quality replacement parts and components. We assure rapid delivery of parts from our own stocks to any destination around the world.

Modernisation
Since our extrusion and forging presses have a long service life, we constantly strive to refine the technology still further. This is one of our core competencies. Our service package therefore includes all the tasks required for modernisation.

- Actual-status analysis, consultancy and elaboration of modernisation concepts to:
  - improve product quality
  - extend the product portfolio
  - increase cost-effectiveness
  - increase output and availability
  - reduce the environmental impact and improve workplace conditions
- Overhauls
- Retrofitting (programmable logic controls, even for older presses)
- Conversion and integration of new developments in existing plants
- Complete revamping from a single source
- Modernisation of other makes of equipment
- Rapid completion of conversion projects
CONTACTS

We are there whenever you need us.

We will be happy to answer any questions you may have concerning our company or our products. Simply call or email us — any time.

If you wish, we can also send you more detailed information material.

We'll be glad to hear from you.

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Our divisions:
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- SUTTON Extrusion Division
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