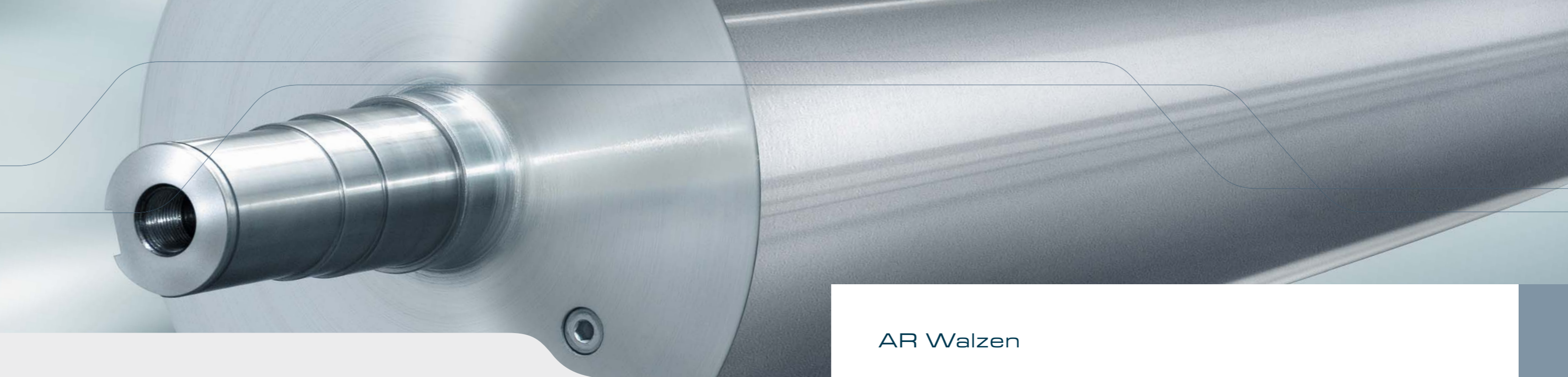


A close-up, black and white photograph of a metal roller, showing its cylindrical shape and fine surface texture. The roller is positioned vertically, with the top part slightly blurred.

Precision in Roller Technology





AR Walzen

The company

We have been designing and producing rollers for every application area for 20 years. You are welcome to contact us concerning the production of customised rollers designed to suit your individual needs – a task and challenge that we especially welcome. This has enabled us to develop and become a reliable and leading partner in industry.

Production

- Driving rollers
- Spreader rollers
- Web guiding rollers
- Dosing rollers
- Printing rollers
- Laminating rollers
- Guiding rollers
- Support rollers
- Idle rollers
- Drawing rollers
- Heating rollers
- Cooling rollers
- Web drawing measuring rollers
- Inside bearing rollers
- Throat rollers
- Continuous solid axle rollers
- Tube axles



Production in Germany and the Czech Republic



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Sizes

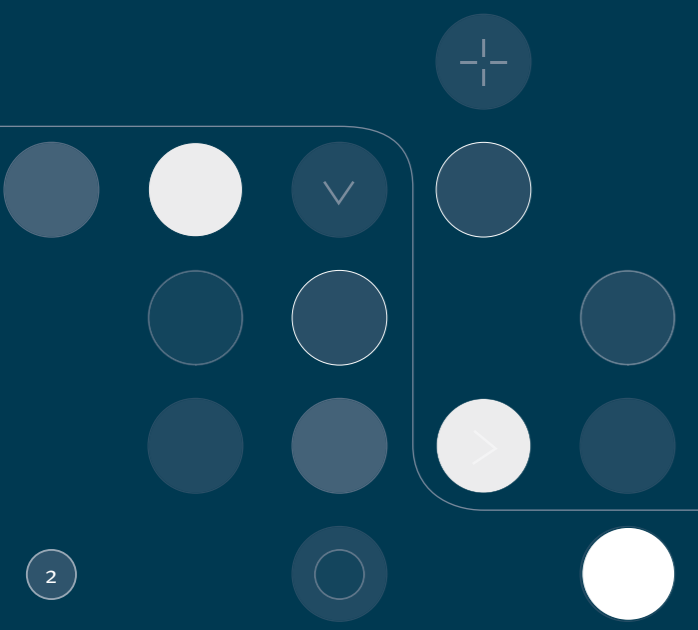
Diameters up to 1,250 mm
Lengths up to 10,000 mm



High-precision roller production for every application



Our 150 personnel are a reliable and highly-motivated production team



Cooling and heating rollers

Our heating and cooling rollers are designed to enable a particularly uniform temperature distribution over the entire roller width. Heating or cooling is realised with an externally-supplied liquid medium (e.g. thermal oil, water, steam) or electrical heating rods integrated in the roller.

Versions

- Double wall with spiral baffle
- Single-sided intake and outlet
- Opposing intake and outlet
- Counter-directional cooling flow
- Lapping roller (single-wall)

Surfaces

- Hard coating
- Hard chrome plating (single layer or triple layer)
- VA coatings
- Plasma-ceramic Teflon coatings
- Rubber coating of all types

Materials

- Steel
- VA stainless steel
- Aluminium
- Combination of steel and VA stainless steel
- Combination of aluminium and VA stainless steel

 **COOL** – Cooling rollers

 **HOT** – Heating rollers

Range of applications

Dryers

- Paper dryers
- Adhesive dryers
- Paint dryers

Coating machines

- Laminating machines
- Zinc plates
- Corona treatment

Printing

- Flexo printing
- Gravure printing
- Screen printing
- Offset printing
- Label printing



Cooling roller rack at Vits in Langenfeld, Germany, equipped with three cooling rollers (ø 200 mm, ø 400 mm and ø 800 mm) from AR Walzen



Cross section: cooling roller with internal helix (e.g. cooling rollers for UV dryers, label printing)



Manufacturing of cooling rollers in modern production plants



Maximum flexibility: web drawing measuring roller with single-sided wiring



Web drawing measuring rollers

Drawing forces in web materials (e.g. plastic films or paper) are recorded with AR measuring rollers.

Technology

The AR measuring roller was developed in cooperation with FMS Force Measuring Systems AG, Switzerland. The measuring roller is secured in the same manner as a normal roller to the lateral machine room or with an optional shaft block. The force measurement sensors are integrated in the roller and record the forces acting on the roller.

Measuring principle

The force sensors function on the double bending beam principle with mechanical overload protection. Measurement is realised by four expansion measuring strips which transform expansion or compression of the bending beam into electrical signals. The red dot on the connection ring indicates the direction of force which triggers a positive measuring signal.

Advantages

- Integrated overloading protection, 10 x rated measuring force: recalibration is not necessary
- Rated measuring force of 200-12,000 N: broad measuring range and maximum resolution
- Stainless steel force sensors: durable corrosion resistance
- Force sensors integrated in the roller with single-sided electrical connection: simplest mounting characteristics



Manufacture of special products

Material and surfaces

Our many years of experience and contacts ensure that you are provided with superior materials from selected reliable suppliers. Surface finishes and coatings for rollers can be produced to suit your requirements.

Materials

- Steel
- VA stainless steel
- Aluminium
- Combination of steel and VA stainless steel
- Combination of aluminium and VA stainless steel
- Rubber
- CFRP/GFRP

Surfaces

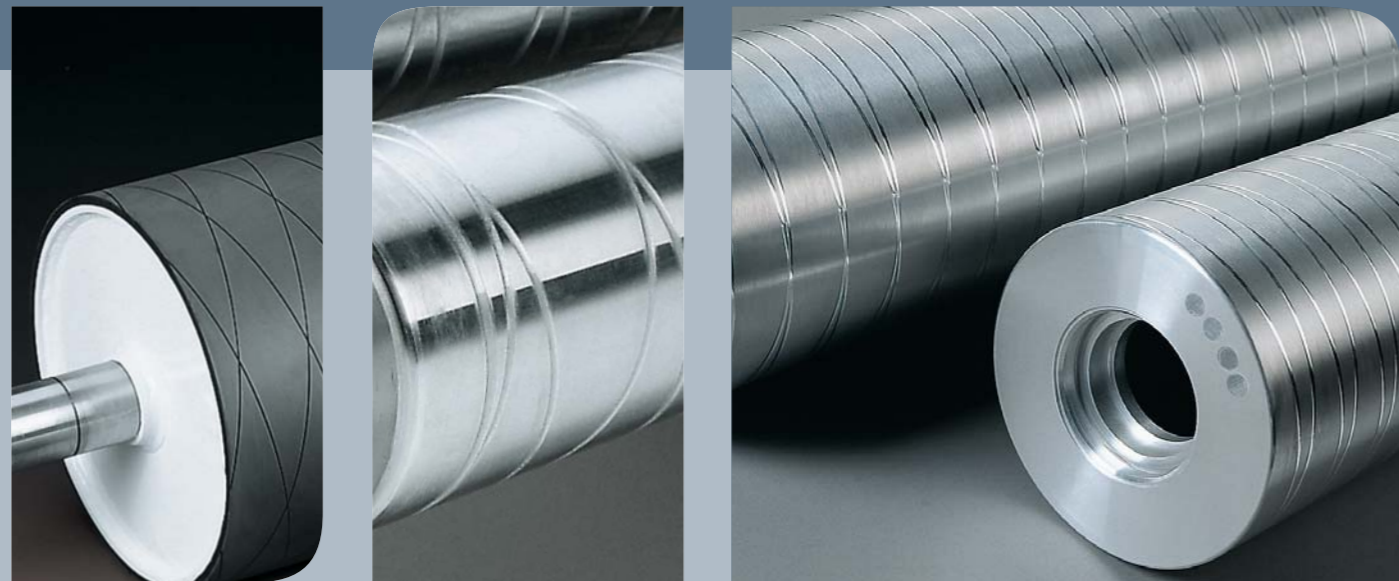
- Super finish turning
- Belt ground
- Stone ground
- Scored surface
- Honeycombed surface
- Knurled surface
- Blasted surface
- Embossed finished surface
- Concave
- Convex
- Grooved
- Ring grooved

Coatings

- Anodising
- Hard coating
- Black finishing, phosphatizing and nickel plating
- Flame spraying
- Plasma-ceramic Teflon coatings
- Hard chrome plating (single layer or triple layer)
- VA coatings
- Copper plating
- Rilsan coating
- Annealing and hardening
- Heat-shrinkable Teflon tubing
- Rubber coating of all types
- Rubber cork, knopped and fabric coating
- Diverse weaver's beam coatings
- Adhesive tape coatings

Special versions

We will be delighted to product special formats, surfaces and coatings to suit your specifications. **Simply contact us!**

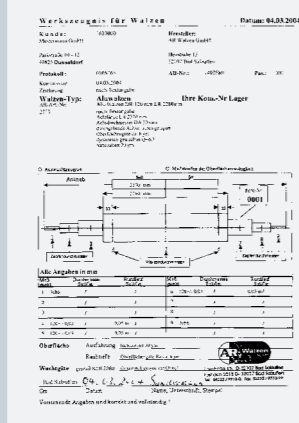


Service and quality management

Our comprehensive stocks of blanks and a highly-motivated 150-strong team at two locations enable us to immediately meet individual customer wishes. Our machinery is of the latest standard, providing us with the support necessary to keep delivery durations to a minimum.

Quality certificate

After undergoing comprehensive final quality control, each roller can be issued with its own individual quality certificate if requested. This quality certificate contains complete information on the roller dimensions, material and surface and the balancing and roughness reports. This means that you receive complete documentation of roller characteristics on delivery of your product.



Reconditioning

Our rollers quite naturally exhibit light indications of wear after long and hard use. Our roller maintenance in such cases includes speedy repair and replacement options:

- throat reconditioning and renewal
- ball bearing inspection and replacement
- dynamic balancing
- new turning and regrinding
- coating removal
- recoating
- sealing
- and cleaning

Innovation

Our own developments and patents guarantee you maximum reliability and optimum finishing of your rollers. We will be delighted to incorporate specific customer adaptations for your special applications.



Maximum precision of results guaranteed by continuous inspection



Our rollers are inspected and carefully packed for shipment





We supply

- driving rollers
- spreader rollers
- web guiding rollers
- dosing rollers
- printing rollers
- laminating rollers
- guiding rollers
- support rollers
- idle rollers
- drawing rollers
- heating rollers
- cooling rollers
- web drawing measuring rollers

- inside bearing rollers
- throat rollers
- continuous solid axle rollers
- tube axles



AR Walzen GmbH
Büxter Weg 51
32107 Bad Salzuflen
Germany

Postfach 5013
32087 Bad Salzuflen
Germany

T +49 (0) 52 22 . 97 70 - 0
F +49 (0) 52 22 . 97 70 - 99
E ar@ar-walzen.de
W www.ar-walzen.de