

*Calender,
Mixing and
Smoothing Rolls*

Breitenbach. The Roll Company.

Calendering, pressing, mixing and smoothening

... for these manufacturing processes, precision rolls are used in order to guarantee that the final products have the optimum properties.

It is obvious that rolls used for these purposes must meet extremely high standards, since the quality demands for production, converting and treatment of materials in continuous runs can only be achieved using rolls of maximum precision with respect to geometry, runout and surface finish.

Throughout the world, machine and equipment manufacturers as well as end-users involved in the processing of paper, foils, plastics, rubber etc. are our customers. All sizes of rolls are supplied in any design which may be required.



Through close co-operation with our customers we are fully familiar with their requirements. By purposefully gearing our production range and services to suit our customers' needs, we are able to develop and provide products now, which will meet future demands.

Rolls produced by Breitenbach are manufactured to comply exactly with customers' specifications or they are designed and produced in close co-operation with the end-user. Mechanical and thermodynamic strains are taken into account.

One-hundred-percent inspection is of great importance to us. Each manufacturing step is fully documented, because complete quality assurance is a matter of course for us. Research and development are considered as means of constant improvement of materials, processes and service, and these processes are continuous.

Designs

Breitenbach supplies rolls for mixing, calendering and smoothening of many different designs:

- solid rolls
- cored rolls
- rolls with central bore
- rolls with peripheral bores
- rolls with shrunk-in or bolted-on journals
- fabricated steel rolls
 - with single or double shell
 - double shell with spiral between inner and outer shell
 - double shell with solid inner body and spiral between body and outer shell
 - shells for S-rolls

The rolls are heated or cooled using vapour, water, thermal oil or electricity.

Materials

As a roll manufacturer with our own foundry, Breitenbach is able to offer rolls made from various materials, i.e.:

- chilled cast iron (single poured)
- chilled cast iron with nodular cast iron core (compound casting)
- grey cast iron
- high chrome-alloy special cast iron
- forged steel
- constructional steel and heat treatable steel

Machining

Since Breitenbach rolls are manufactured using modern CNC machines at all manufacturing stages, maximum precision is guaranteed with respect to cylindricity, roundness, concentricity and surface quality. Besides cylindrical barrel grinding all types of crowns, as well as special roll profiles, are possible. Rolls with a special surface finish, for example

- matt
- engraved
- corrugated

are also included in our manufacturing range.

Using oil or water heating systems, roll grinding temperatures of up to 300 °C can be achieved. This ensures maximum precision for the roll when it is heated up to operation temperature. Our expertise, which is the result of continuous research and development in the field of superfinishing, even allows us to produce rolls with a flawless mirror finish.

Coatings

The barrel is provided with a suitable coating, e.g.

- chrome, applied as single or multiple layer
- nickel, also as Ni/Cr compound coating
- coatings applied by thermal spraying
- rubber, polyurethane and other plastic coatings



Service

It is a matter of fact that Breitenbach does not only supply new rolls.

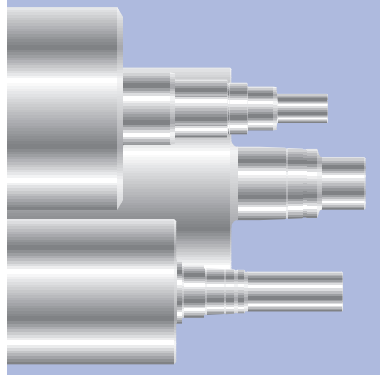
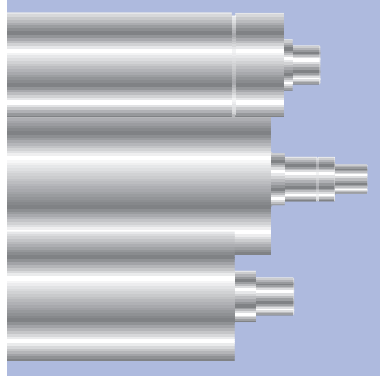
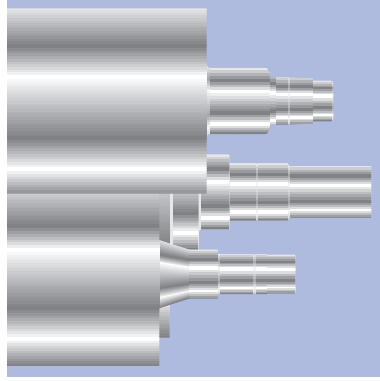
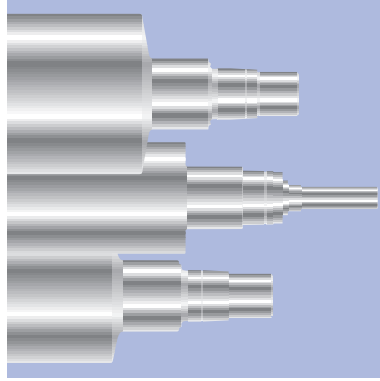
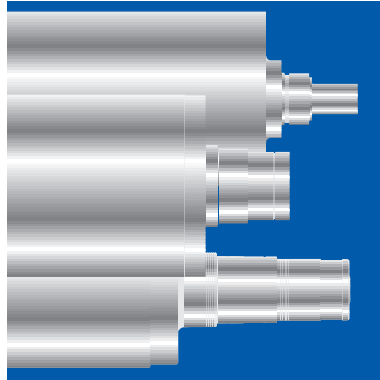
We also offer refurbishment, repair and reconstruction of existing rolls as part of our service.

With more than 135 years of experience we are the ideal partner for

- coatings
- regrinding
- hot grinding
- repair or replacement of journals
- conversion of heating systems
- roll sealing
- inside cleaning.



**LEONHARD
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Other products in our range:

- ***Coating and doctor rolls***
- ***Heat transfer and chill rolls***
- ***Idler and guide rolls***
- ***Rolls for the food and feed industry***
- ***Service***

**LEONHARD
BREITENBACH
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