DERICHS

Maschinen- und Apparatebau GmbH

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DERICHS
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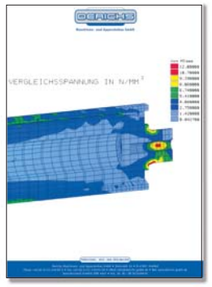
Made in Germany? Oh yes!

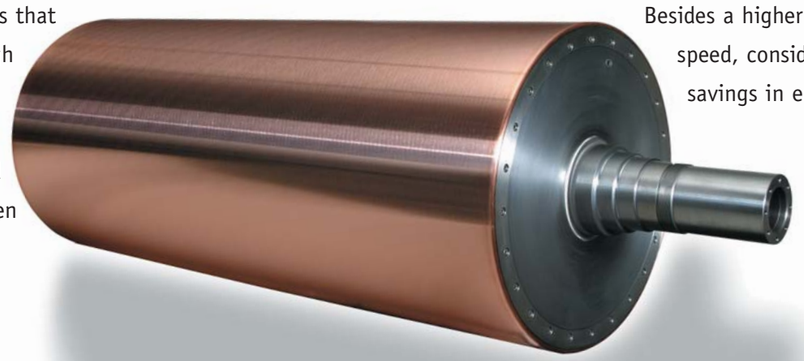
English

INNOVATIONS MADE BY DERICHS



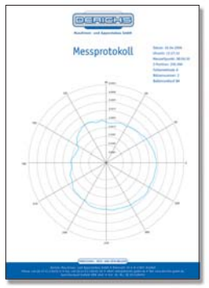
Take advantage of our over 30 years of experience in the plastics industry.
Thousands of our rolls are in operation worldwide.
Incredibly perfect in precision and function.

Perhaps you didn't know it, but SWA-Rolls, BSA-Rolls, Arcoform-Rolls, Jet-Rollers and Cooling-Rolls with smooth running properties are Derichs developments. High-tech developments that came into being through close cooperation and an exchange of ideas with our customers and most of which have been patented.

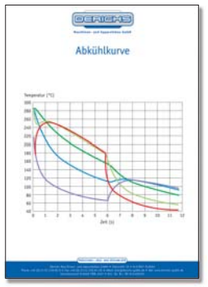


Our most recent development, too, the Derichs Copper-Roll, resulted from the increasing demands placed on the cooling capacity of the rolls.

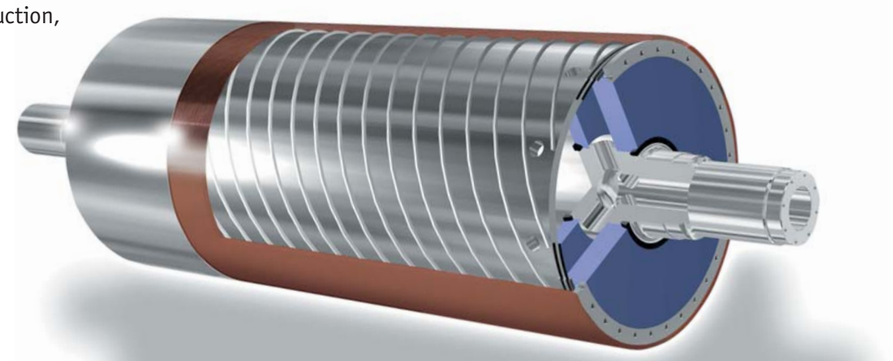
Based on our know-how, a technically perfect solution that surpasses the capacity of conventional rolls many times over was able to be developed first go. Thanks to the significantly higher heat conduction of the copper jacket, the usual condensate precipitation on the roll surface, which occurs especially in countries with (or at times of) high air humidity, can be avoided.
Besides a higher plant speed, considerable savings in energy costs are also possible here since the cooling water can be run significantly "warmer" and additional cooling of the water is thus reduced or can be dispensed with completely.
If you are interested, we would be glad to provide you with further details on this type of roll and to prepare a comprehensive heat analysis.



- Competent consulting in development and design
- Detailed strength and deformation analysis of the roll through FEM calculation
- Optimization of the heating / cooling capacity as well as analysis of complete cooling processes through FD calculation
- Design and production of all types of rolls and surfaces under one roof



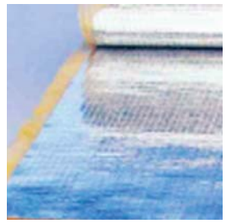
In addition to roll production, we offer you extensive services to help you find technically optimal solutions for production planning and design:



A DIVERSE SPECTRUM OF FEASIBLE SOLUTIONS

We do not have an answer for everything, but we have a solution for all requirements. On the basis of our decades of specialization in “rolls for the plastics industry”, we have a great store of experience to fall back on. Nearly all renowned manufacturers of machines and plants make use of our specialized know-how in selecting the suitable rolls for the respective application.

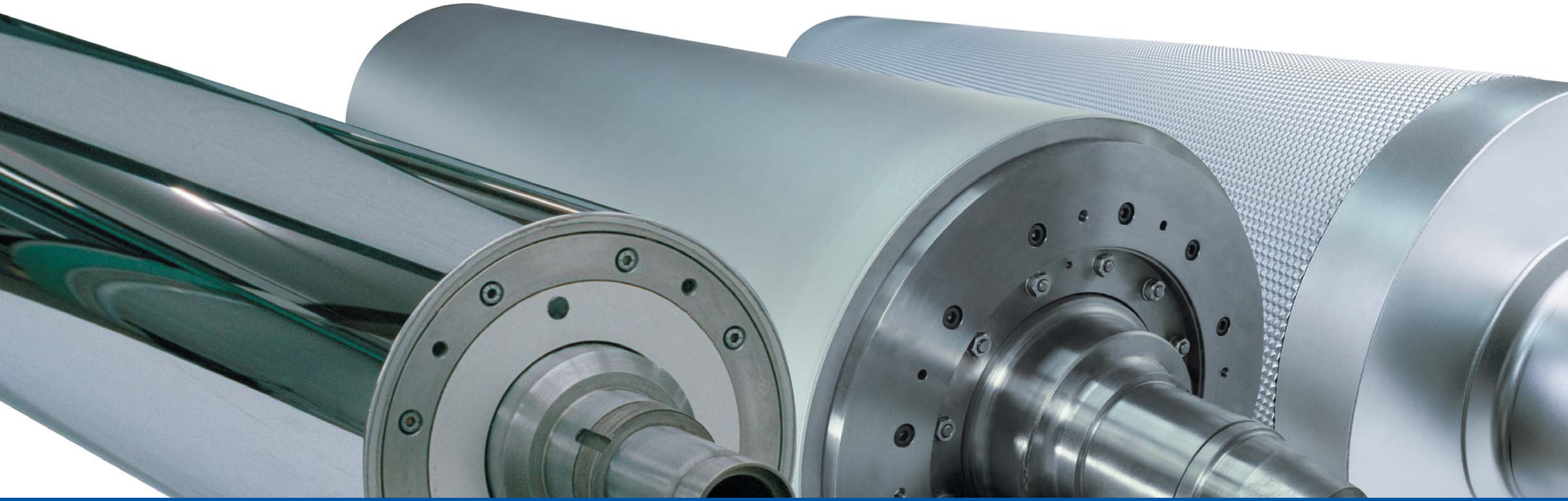
The secret is quality, reliability and flexibility. Virtues for which “made in Germany” stands.



For us they are still an integral part of our philosophy.

In addition to the mechanical and thermodynamic design, the surfaces of our rolls play a decisive role. From roll embossing and laser engraving to special matting, such as D.M.E. 3-100, orange-peel, glossy-low-friction or non-set-off, all the way to absolute mirror finish with $R_{max} \leq 0{,}03\ \mu m$, all surfaces are produced and offered on a product-specific basis.

In a few years the daughters of our employees will confirm that this special surface is perfect.



EVERYTHING REVOLVES ARAOUND OUR ROLLS

Laminator

Products from the fields of extrusion coating, production of films of deep drawing quality as well as flat film production are becoming increasingly important in everyday life. Today one cannot imagine this still growing market without our high-tech rolls.

Laminator

By coating webs of material with, for example, paper, aluminium foil, textiles, non-woven fabric, etc., new high-quality composite material is produced.
Furthermore, beverage cartons and packaging paper are classical examples of this.

According to need, line loads of up to 1,000 N/cm are absorbed reliably. By virtue of our new copper rolls, it is possible to guarantee rapid cooling of the melt without the formation of condensate that usually occurs in this process. We design the surfaces according to your requirements on a product-specific basis.

Calender

For the production of ABS, PS, PET, PP as well as PMMA and PC. By calendering thermoplastic plastics, extremely thin and highly precise (packaging) films and films of deep drawing quality, among others, are produced.

Calender

Among the typical calenders for such applications, our patented BSA models are the best option for ensuring minimal deformation even at high line loads. Thanks to a special inner construction, thickness tolerances of a few µm are frequently achieved depending on the product and the plant configuration.

We alternatively offer all smoothing roll models also with hardened surfaces in order to minimize the risk of local damage, as can often be observed in the extrusion of PET films.
The use of the most suitable material in combination with state-of-the-art hardening and annealing processes is taken for granted here.

Chill roll plant

Chill roll plant

High-quality thin films, e.g. made of PE, PP and PA, are produced on a high-performance cooling roll with additional after-cooling rolls.
Typical applications of these products are office foils, hygienic foils, industrial and food packaging as well as all types of stretch films. In these plants our copper rolls (see page 1-2) are used to an increasing extent in addition to our standard chill rolls.