HIGH TEMPERATURE TRANSPORT SYSTEMS
ROLLMOD GmbH is a medium sized owner run company and has been successfully established in the market since 1989. ROLLMOD specializes in production systems and components for high temperature production processes. The focus is primarily on transport systems for roller hearth furnaces and additional components such as warning systems and inert gas generators. The activities of ROLLMOD encompass development, manufacture, sales and servicing of the systems and this on a national and international level.

The company headquarters is in Renningen in the Stuttgart metropolitan area. Development and construction as well as assembly, maintenance and logistics are carried out here. A competent and highly motivated team develops and produces innovative solutions on the pulse of technological progress and oriented towards concrete customer needs. The results are first class systems, modules and components, which have been tried and tested for over 20 years in demanding high temperature production processes. The international sales are supported by branches in Germany, Europe and the USA.
The departments of rollmod GmbH coordinate in an exemplary manner regarding consulting, planning, production and service. Linear, results oriented and responsible, these professionals work in cooperation and at eye level with the customer. In this fashion high quality products and custom functional system solutions are created, which are highly valued and favoured in the global market place.

»Intelligent automation, precision, functional safety, low maintenance, cost reduction and energy efficiency are particularly crucial productivity factors in high temperature technology – with our rollmod transport systems and our interdisciplinary expertise in the sector of heat process technology we are a sought after and competent solution partner for our customers worldwide.« Dr.-Ing. J.A. Wünning

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Dr. Ing. J.A. Wünning, senior manager, co-founder and creative director. He is the owner of a number of patents, inventor of FLOX® combustion and due to his long standing experience is a valued consultant for technical questions.

Dr. Ing. J.G. Würning (left in picture) technical manager, stands for the continuity of the innovative ability in the company. He owns various patents and is involved in many national and international research projects.

Dr. G. Schönfelder (right in picture) commercial manager, is the initiator and co-founder of rollmod GmbH. His vision: Internationalization, worldwide sales and efficient workflow in all instances.

COMPETENCES

Product focus:
High temperature transport systems for roller hearth furnaces sealed against inert gas

Additional components:
Quenching systems
Inert gas generators

VERSAND
ROLLMOD
transportanlagen-transportsysteme GmbH
The patented rollmod transport system: the aim of the production process in roller hearth furnaces is to achieve balanced heating of the production parts without large heat losses. Transport systems with single layer feeding, short spacing and low roller diameters are suitable for this. The technological challenge is to solve the constructive and functional problems regarding storage, the motor and the inert gas leak proofing of the rollers made of heat resistant steel and/or ceramic material. Rollmod achieved this so successfully that it was able to be protected by patent as a rollmod principle. All components of the rollmod transport system are compiled in exchangeable and function safe modules and therefore low maintenance, precise and low cost production units for roller hearth furnaces were achieved.

The rollmod transport systems consist of precise and individually checked rollers, preferably made of high performance ceramics, a highly effective insulation and inert gas leak proof, the robust motor casing, connecting flange and a reliable motor for continual transport or cyclic operation with individual speed regulation.

Product focus: transport systems from rollmod for roller hearth furnaces and the automatic heat treatment in the production line.

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The heating of the furnace systems can be achieved by alloy radian tubes above and below the roller conveyor with electrical heat cartridges or by using self recuperative burners. Their performance and maximum temperature is adapted according to customer specifications. In this way we can offer complete solutions all in one place.

The ROLLMOD module motors can be linked into the production line with all modern controls. Equally the inert gas operation with inert gas (nitrogen) can be integrated into the control or reaction gases (e.g. with regulated C potential using lambda or oxygen probes), the temperature regulation, roller speed and high gear. The throughput speed can be set to almost whatever you want and cycled. This also applies to optional, photoelectric barrier controlled high gear stretches on the furnace inlet or outlet.
At the facility in Renningen there is the opportunity to test and evaluate production samples in Rollmods own full sale test furnace and therefore experience all Rollmod systems in productive operation and evaluate them. The Rollmod test furnace is divided into 3 heating zones of 3 m in length and allows a maximum temperature of 1,250°C. The inert gas proofed roller hearth furnace is heated with ceramic self recuperative burners in a ceramic single ended radiant tube. In terms of inert gases a cracked gas made of CO₂ / CH₄ for carbonization, as well as NH₃, as a nitrogen dispenser and propane to enrich the atmosphere is available. Additionally the furnace can be operated using tail gas made of natural gas/air as well as with various forming gases or nitrogen from the bottle. Control of the furnace atmosphere is achieved via oxygen probe. As a quenching medium the gasform® principle, using high velocity air or alternatively a salt and oil bath are available. By powering the module with step motors treatment times of 2 mins to 2 hours can be realized. At the end of the furnace you can optionally work with high gear (250 mm/s) or in furnace speed in the quenching unit. Various measuring devices and interfaces can be used

Useful for any customer: the Rollmod test furnace for test running individual production processes and for determination of requirements and configuration of own production lines.
for various process analyses. As a result all the relevant parameters and data are available for the test run, in order to be able to define and configure the right system solution for each customer. We will advise and accompany you from planning to installation and operation on location in your production lines.

Additional components:

Pictures right: The GASOFORM® quenching system from ROLLMOD: The better alternative to conventional oil hardening ring and disk shaped production parts. The process: the production parts are evenly warmed in the ROLLMOD optimized roller furnace and are put into a special quenching form controlled by a photoelectric barrier. Then they are cooled on all sides with gas coming from the nozzles. A process regulator controls this procedure automatically and very flexibly e.g. for the martensite, bainite or warm bath hardening.

Without picture: The FLOX® inert gas generator from ROLLMOD for direct attachment to the furnace system. To supply the furnace system with inert gas independently of delivery gases the inert gas generator with FLOX® heating was developed. Decisive advantages are among other things the direct connection to the furnace; the independence from external inert gas supplies and the environmentally friendly and energy efficient FLOX® operation.

Picture below: An exemplary selection of typical production parts, which pass through the transport system of ROLLMOD to the roller hearth furnaces of our customers.