

Knife Manufacturer Invited to the 4th Cutting Symposium

Conference about slitting of cold rolled strip

Leipzig (mh). The 4th cutting symposium held in October by the manufacturer of machine knives IKS Klingelberg, headquartered in Remscheid/Germany, was about the economic situation and the technical state regarding the slitting of cold rolled strip. One of the topics was how to respond to future challenges in a modern production department.

Already for the 4th time, IKS Klingelberg invited to the cutting symposium near its site in Geringswalde/Germany. About 70 participants were informed in a number of talks about the current state of development regarding the slitting of cold rolled strip. In addition to reports about knife materials and precision slitting shears, the introduction of modern production methods of circular blades was on the agenda in Geringswalde.

Flexible response to challenges

The managing director of IKS Messerfabrik Geringswalde GmbH, a subsidiary of the IKS Klingelberg group, Michael Zerfass, and the production manager of the site in Saxony, Hartmut Grab, both reported on the organization of production and sales, current projects and scheduled investments in Geringswalde. The subsidiary in Saxony manufactures circular blades; altogether 125 employees are working there. "To implement the strategy for growth, we pondered about what the future might be", said Mr. Zerfass. "We aimed at mastering the challenges of the market quickly and flexibly."

In cooperation with renowned universities and academies, both an investment plan and an improved production and organization were prepared. The set task was to advance the sales development, to reduce the production lead time as well as to achieve on-time delivery of more than 95 %.

The project resulted in the application of a new control tool for the handling of quotations and orders. The investment plan has already been adopted by the partners of the companies and also been implemented to some extent.

Ever rising requirements regarding materials

The product manager of the Austrian Böhler Miller Messer und Sägen GmbH, a company of the IKS Klingelberg group, Manfred Gstettner, gave a lecture on the development of knife materials. He said that the main requirements to an efficient knife were a long service life, low risk of fractures, good wear performance as well as good grinding behavior. The knives wear out when subjected to heavy-duty industrial applications. Gstettner explained that during the cutting process bonding between the material to be cut and the knife material occurred, while the process-related shearing force broke them open again and again. This problem might be solved by the choice of knife materials with appropriate hardness and toughness features. The improvement of the grinding technique when regrinding the knives could also contribute to the reduction of fractures as a result of material fatigue.

He pointed out that the material producers tended towards increasing wear resistance and viscosity and that the development of materials with an increasing viscosity could become a problem, as the requirements to the machines for the processing of such materials changed sustainably.

Continuous Development at Machine Manufacturers

Thomas Baral, the managing director of the machine and plant manufacturer Burghardt + Schmidt, informed about the production of precision slitting shears. Mr Baral emphasized that the company with its 80 employees produced the heart of the machines itself. The precision requirements to slitting shears are ever increasing. "Extremely high accuracy is required", said Mr. Baral and added that the company further developed its machines continuously.

Volker Glave, managing director of Norder Lagertechnik GmbH & Co. Maschinenbau KG (NLT), reported on the use of robots in the assembly of knife shafts on slitting machines. He said that in particular reliability, cutting accuracy,

the possibility of manual operation as well as proper bearing of the tools were required from automated systems and that NLT met these requirements.

Axel Müller, managing director of Management Consulting AMCG, a company specializing in technology, further reported on a study regarding the "Development of the Steel Market", prepared in conjunction with the IKS Klingelberg group. Dr. Ing. Wilhelm Bolte, member of the board of the German Cold Rolling Museum in Hagen gave a historical overview of the development of precision cold rolled strip. Furthermore, the managing director of the Institute of Steel VDEh, Düsseldorf, Dr. Ing. Dipl.-Wirtsch.-Ing. Carl-Dieter Wuppermann, went into detail about the diversity of steel as material.

Executive Vice President of the IKS Klingelberg Group and director of the Division Metal, Dr. -Ing Thomas Klumpen, acted as a moderator of the symposium. In addition to the speeches, each participant had the chance to take part in a guided tour through the knife plant in Geringswalde.

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