

Modern Motion Control Solutions in Practice



The Challenge

Have you ever asked yourself ...
... how supplements and CDs get into a magazine?
... how labels get precisely attached at the right place?

Learn more about the secrets of a newspaper production line
and the advantages of modern motion control solutions.

The Solution

Ferag AG is one of the world's leading suppliers of machinery and equipment for the print finishing industry. Ferag systems produce up to 100,000 magazines or newspapers per hour. The Ferag machines are "fed" by an almost endless flow of paper coming from a rotary printing press. Each printed sheet is automatically cut, folded, and assembled; each magazine is automatically stitched together. Supplements, like leaflets, flyers and CDs, are inserted and address labels are attached without stopping the fast moving conveyor belts.

Each sheet of paper and newspaper component is recognized by sensors directly in the process flow. "Intelligent" motion control modules automatically calculate the required motion profile and trigger the start of the feeding process. Each supplement is accelerated until it merges into the newspaper with the correct speed at the precise position. The speed of the main conveyor belt and the position of each newspaper is the "master" of the process flow and cannot be decelerated or stopped. Each additional supplement must adapt to this speed and accurately "hit" the target position for merging to be successful. This is done by a highly synchronous feeding system. If the machinery is running at its maximum speed, there are just 27 milliseconds per copy to calculate a real-time CAM profile and to control the required movement of the supplement.

Ferag AG relies on MACS motion control units from zub machine control AG to guarantee a continuously flowing process with maximum performance and a highly accurate real-time feeding calculation and control. On-the-fly CAM profiling is just one of the many competitive motion control features handled by zub's products and software.

The Conclusion

Even complex process tasks seem to be simple in the end if the right product is combined with a highly efficient engineering service that understands the application's demands.

Application videos and further product information:

- Video links showing machines based on zub's motion control units and know-how:
[Plant for print post-processing](#) / [Plant animation](#) / [Application video](#)
- Links offering further information on zub's products:
Press releases: [MACS5](#), [MACS5-AMP](#), [MACS5 + PLC](#) / Data sheets: [MACS5](#)

Your Partner

zub machine control AG provides highly sophisticated motion control modules and software for drive positioning and synchronization.

The MACS motion control modules are the intelligent link in between the PLC or PC and the drive unit. Standardized hardware and software interfaces combined with free programmability offer maximum compatibility without any limitation for the integration of application-specific features and add-ons.

zub AG offers supplementary consulting and engineering services to assist their customers in a very focused and most efficient way.

Take the opportunity to reduce your time to market, your development costs, and your risks. Count on a partner like zub AG, who provides products and engineering services focused on highly-sophisticated but still cost-optimized motion control solutions.

We are happy to accept your challenge. Please [contact](#) us for an initial discussion.

zub 
www.zub.ch