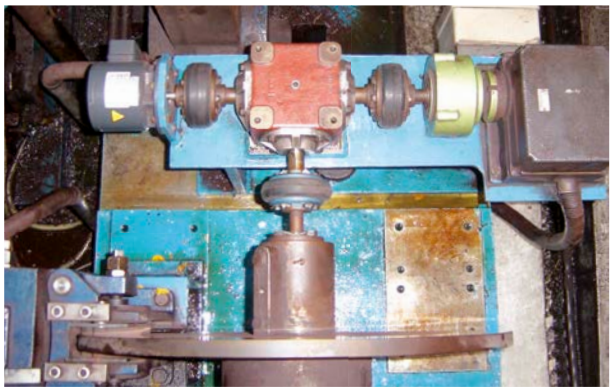
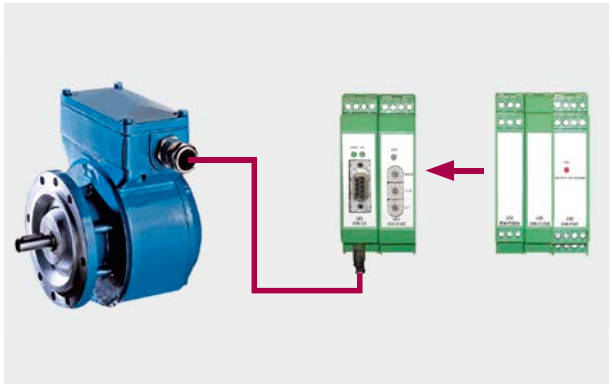
Rolling mills / Side guides and screw downs: Higher control accuracy in hot rolling mill due to direct encoder attachment

- No mechanical play because solution requires no transfer gearbox or additional couplings
- Directly attachable compact U-ONE basic unit
- EMI safe signal transmission via fiber optic cable
- Improved material quality due to higher control accuracy



Before: The assembly of encoder and mechanical cam limit switches with transfer gearbox and additional couplings produces control inaccuracies cause of mechanical play.



Modular U-ONE-System with directly attachable basic unit creates greater control accuracy.

Task

Side guides are used to centre the metal strips upstream of the roll stands. In some cases, mechanical cam limit switches and / or absolute encoders are still used for position detection and control. Attachment to the available shaft end of the drive is a widespread solution. To improve control accuracy and, as a consequence, the quality of the material the customer desires a directly mounted, compact solution without a downstream transfer gearbox (gear backlash). The same demands apply to adjusting the screw downs for thickness control.

The Hübner Giessen solution

The advantage of the modular U-ONE® system from Johannes Hübner Giessen is that just the universal basic device is mounted to the side-guide, while the functional modules are housed externally in the switchboard. A fiber optic cable is used to achieve the EMI safe connection, a solution that offers considerable savings with regard to cabling time and costs. The system is programmed via a central USB interface. The system is easily extended with the series (side-by-side) plug-in function modules in conjunction with the low-cost of spare parts.

Products

- UOM 4 L, UO-EM-D2, UO-EM-AMP, UO-EM-ERC, UO-EM-FG4
- HKD 5
- Engineering support

More information: www.huebner-giessen.com/en/applications