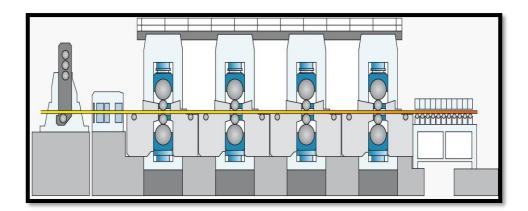


## **QUALITY REPAIR OF MANUFACTURING EQUIPMENT**

## Maximum Precision by means of Hydraulic Automatic Gauge Control - HAGC

When manufacturing slabs, sheet metal and foils, the aim is to accurately maintain the manufacturing tolerances while the rolling mills are in operation.



Hydraulic automatic gauge control systems are used to position and to maintain with precision the specified gap between the work rolls. The required manufacturing tolerances are achieved here independent from disturbance values such as varying degrees of hardness in the steel strip, deformation in the mill stand or irregularities in the strip.

In hot-rolling mills slabs for example with a thickness of 2,500 mm are pre-rolled in a so-called roughing stand down to a thickness of approximately 50 mm and then subsequently further reduced in the finishing stands down to 1 mm. These strips can then be further processed in cold-rolling mills into sheets or foils with a strip thickness lying between 0.1 mm and 3 mm. These sheets to be used for example in the automotive industry have a high degree of dimensional accuracy down to hundredths of a millimeter.

HAGC cylinders with an integrated position transducer are used to achieve this level of precision under maximum loading. They are positioned precisely by means of a servo-hydraulic system and are able to maintain this position for the duration of the complete rolling process.