

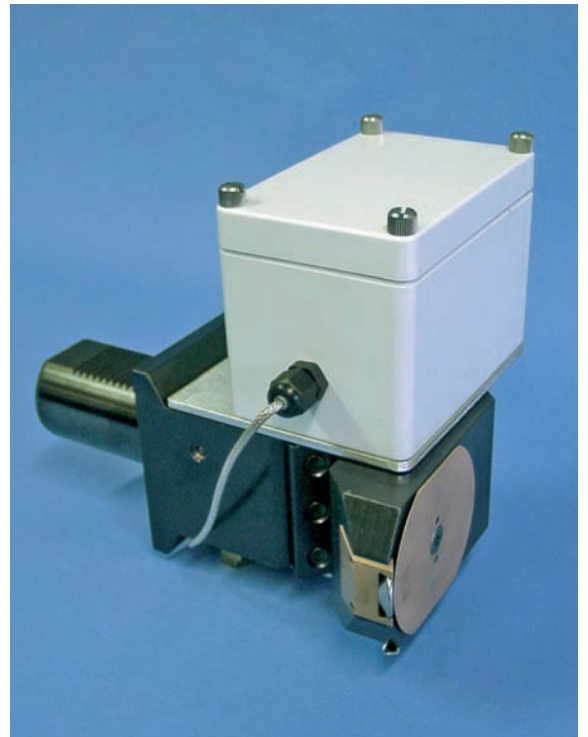
Force Monitoring Systems for EF and HG Deep Rolling Tools

In deep rolling, the operating parameters significantly influence the improvement in the workpiece's fatigue strength and service life. That's why ECOROLL continues to work toward a solution for directly monitoring deep rolling parameters during the process.

The most important parameter is the burnishing force. On ECOROLL EF tools, this force can already be determined by measuring the deformation of the springs that supply the force. This value is displayed on a gauge and can be converted into a burnishing force value by using a spring deflection diagram.

Recently ECOROLL has developed a wireless telemetry unit that transmits burnishing force data from the deep rolling tool to an external display. With this unit, operators can monitor and control the burnishing force during the process.

Future developments include a force monitoring system for all ECOROLL deep rolling tools in the EF and HG lines. This unit will display and analyze the progressive development of the burnishing force during the process. This unit will dramatically improve process reliability while reducing the output of defective parts.



Telemetry unit transmitter shown mounted on an EF tool



Connecting the transmitter to the deep rolling tool