

temperature for spring end grinding machines

Improving the Quality and Performance of the Spring End Grinding Process by means of a Temperature-Controlled Grinding Technique

Situation:

During the spring end grinding process there is a critical spring temperature which must not be exceeded. Currently, spring producers find out whether the upper temperature limit has been exceeded or not, by means of the springs' annealing colours. This occurs only after the spring end grinding process has been completed. The temperature cannot be regulated in order to avoid reject springs.

Solution:

The *iQtemperature* function enables temperature-controlled grinding of spring ends. The mean temperature of springs is recorded by a patented, in-process, temperature measurement system. Depending on an adjustable maximum temperature, the down-feed speed during the spring end grinding process is regulated. Thus the critical spring temperature is never exceeded. Based on the collected temperature data conclusions can be made about the optimal wheel dressing point. The result reduces the downtime and increases the output rate.

Your benefits:

- Less reject springs due to regulation of the mean spring temperature
- Direct in-process measurement of the spring temperature
- Optimization of wheel dressing intervals, based on the collected temperature data
- Display of the temperature trends to support the operator when setting up the grinding program

Requirements:

- Preliminary verification of function by means of a spring drawing

Available machine types:

- G machines
- Compatible machine sizes on request

