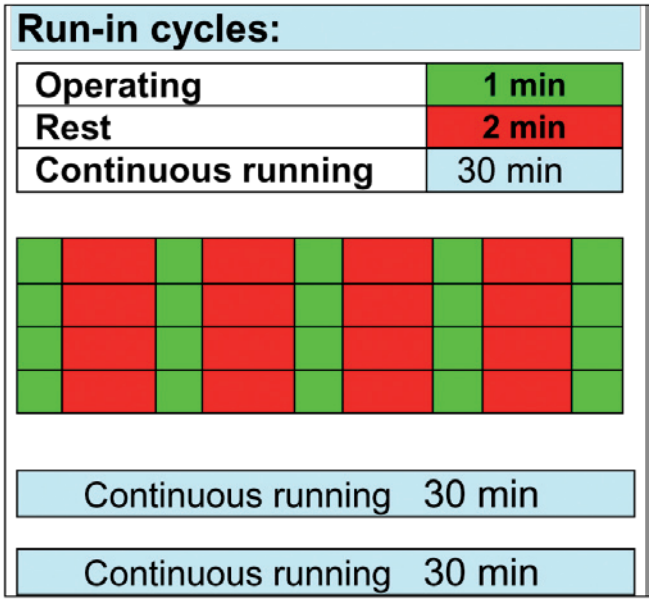
Grease distribution and run-in for spindle bearings and deep groove bearings (in rigid and spring preloaded systems)

An optimised grease distribution and run-in provide the following advantages to your spindle system:

- Optimised speed maximums
- Reduction of operating temperature in the bearing
- Optimised oil release from grease
- Maximum service life
- High operating reliability

The grease distribution and run-in should be carried out in two steps:

1. Short intervals
2. Continuous running



1. Short intervals

The spindle should be brought up to speed in short intervals whereas the individual speed is always just a fraction of the nominal speed. The respective partial speed has to be achieved within 20 seconds and should be held for approx. 1 min. The complete cycle should be set up as follows:

- 5 x 1 minute at n = n_{max} x 0.33 - after this 2 min rest
- 5 x 1 minute at n = n_{max} x 0.66 - after this 2 min rest
- 5 x 1 minute at n = n_{max} x 1.00 - after this 2 min rest

2. Continuous running

For the continuous running cycle the spindle should be operated at maximal nominal speed (approx. 30 minutes). However, no external loads should be applied to the spindle.

- 2 x 30 minutes at n_{max} - after this 5 min rest

Caution:
The run-in cycle should be stopped in case the permitted grease temperature is exceeded or high noise level is measured. A temperature of 60°C on the spindle housing should not be exceeded.

Further notes:

- It is important that all steps of the cycles are monitored with appropriate control devices regarding temperature and noise.
- The viscosity and the amount of grease in the bearing have an influence on the grease distribution and run-in duration.
- Information regarding the amount of grease can be taken from the GMN Information sheet „Guideline for Greasing GMN Spindle Bearings“.

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