

## RUN-IN PROCEDURE

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Although each spindle is run-in at Dynamax prior to shipment, it must further be run-in by the customer prior to being placed in operation. This will ensure proper channeling of the bearing lubrication to prevent excessive bearing temperatures, which could result in immediate bearing failure.

After extended periods of transportation, storage or no-operation, motorized spindles with permanent grease lubrication require a sequence of run-in measures. A run-in period is always required when the bearings are replaced.

Note: If motors are stored for a long time (i.e. spare motors) it is recommended to frequently carry out the run-in sequence in order to maintain the motor operating ability.

**Determining When Run-In 's Are Necessary** Long storage periods or machine down time may modify internal distribution of the grease, qualified personal should check whether the spindle must be run in again. Refer to recorded temperature of the spindle during the start-up phase, if this temperature does not exceed that indicated on the product test certificate by 10°C, there is no need to repeat the running in process. Start running in at low rpm and then increase the speed only once the temperature has stabilized.

**Prior Checks** Prior to spindle start-up and run-in, a check of any auxiliary systems for proper flows, pressures, and temperatures must occur. All of the information, when required, is defined by Dynamax outline drawing and described in this section.

**Run-in Process** Should a run-in be required, start running in at a low number of revs. Initially, the temperature will rise and then drop and stabilize at a certain value. Only at this point can the speed of the spindle be increased. Please adhere to the following instructions.

1. Start the heat exchanger, when required, and run coolant throughout the motor coolant passages (and bearing passages, if required) until the temperature stabilizes. See pages Dynamax 's spindle drawing for bearing and motor cooling operating cautions and parameters if applicable.
2. Verify that all required auxiliary systems are operating properly.

Air/oil lubrication must be started a minimum of 15 minutes prior to starting the spindle assembly and must remain on for a minimum of 5 minutes after the spindle has stopped and the coolant has stopped flowing.

3.Run the spindle at 25% of the rated speed (as shown on the nameplate) for approximately ½ hour.

4.Monitor the temperature of the front and rear bearings. This can be done by taking temperature reading with a pyrometer at various locations around the front and rear housing. If the temperature does not reach 130 degrees F move to the next step.

If the bearing temperature reaches 130 degrees F or higher at any time during the run-in procedure, or the temperature increases more than 5 degrees F in (1) minute, immediately shut the spindle off and allow it to cool to room temperature. Once at room temperature, re-start the run-in procedure at the step at which it was shut down.

5.Increase the operating speed of the spindle to 50% of the rated speed for approximately ½ hour and repeat the temperature check.

6.Increase the operating speed of the spindle to 75% of the rated speed for approximately ½ hour and repeat the temperature check.

7.Increase the operating speed of the spindle to the full rated speed for approximately ½ hour and repeat the temperature check.

8.Run-In Complete