

# High precision spindles



**Thank you for choosing a quality SKF® Precision Technologies product. For best results, read the following product warnings.**

SKF Precision Technologies spindles are quality, high precision machine components that require special care and handling.

All spindles are long-life grease lubricated with high performance synthetic grease. SKF Precision Technologies provides the proper amount of grease to maintain the bearings and prevent premature failure of the spindle. Please contact SKF Precision Technologies for relubrication information for your spindle.

On applications requiring lubrication other than grease, special instructions will be furnished with the spindle.

The mounting surface for a high precision spindle should be rigid and of good surface quality. A surface flatness of .0005 in./ft. is required.

The following points should be followed to extend spindle life and performance.

1. On cartridge spindles, arrange the gravity drain holes towards the floor on horizontal applications, and away from the work on vertical applications. If you are supplying your own housing, supply an access hole through the housing for drainage. SKF Precision Technologies will supply dimension information if needed.
2. Always use balanced tooling to minimize vibration.
3. Do not hammer spindle arbor.
4. Make sure tooling and pulleys are tight and in proper position before operating the spindle.
5. Use quality belts and pulleys. Do not use laced belts. Follow the belt supplier's recommended belt tensioning requirements.
6. Supply proper tool and belt guarding to protect the operator.
7. When using air purge, use a minimum of 50 micron air filter system. Air must be clean and dry. Supply pressure of 5-10 PSI is required.
8. Do not operate the spindle above its rated speed or temperature.
9. If relubrication is required, always use the proper amount and type of grease. Consult SKF Precision Technologies for all lubrication specifications.
10. Make sure spindle tapers, bores and tooling are clean before assembling.
11. Make all attempts to protect the spindle from direct coolant spray or chips. High pressure coolant spray directed at the spindle seal area can overcome seals even with air purge. Chips collecting around the spindle can clog seal drain holes and get lodged in the seal mechanism.
12. Do not tighten cold tools into hot spindle tapers. The spindle tapers and tools should be the same temperature at the time of tool installation.
13. Never stand the spindle on the end of the shaft.

All SKF Precision Technologies high precision spindles are test run at the specified operating speed and checked for performance and temperature.

Shipping may cause the grease to creep back into the bearings and the spindle may overheat initially. If this happens, shut off the spindle and allow it to cool. Start the spindle again and run until reaching the rated temperature indicated on the inspection form. If overheating continues to occur, consult SKF Precision Technologies. Do not rely on touch when checking spindle temperatures; use a thermometer. Spindles may feel uncomfortable to touch at the proper operating temperature.

By following these recommendations, your quality, high precision SKF Precision Technologies spindle will work efficiently for years to come.

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Publication 980-610 Version 10/2006

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