Spindle Ordering and Maintenance Tips

Future Trends in Spindle Design

In the opinion of any spindle designer, the ultimate spindle would have the following characteristics:

1. Unlimited Speed
2. High Power
3. Long Life
4. Self-Balancing
5. Self-Diagnostic

As unattainable as these qualities may sound, they will be fulfilled in future spindle designs. Advances in bearing technology, such as magnetic and fluid bearings, will permit previously unattainably high speeds, as these non-contact bearing systems will exhibit no mechanical wear, a leading cause of existing bearing failure. Superconducting materials and new motor technologies are being developed to provide higher power in more compact packages with less heat. Electronic sensors are coming online that will monitor all aspects of a spindle’s operation, including cutting loads. Any imbalance can instantly be compensated for as the spindle is running, and diagnostic information can be relayed to the CNC control for protective action.

When new technology becomes available, you can count on Dynomax to be on the cutting edge. Since we design our spindles in-house, we are constantly looking for new and innovative ways to improve our products using the latest engineering and technical knowledge. Check back often to see what’s new in the spindle industry.

For more information, contact one of our friendly spindle associates at 847.680.8833 today!