

Helping Vermont stay green

Contact SKF Machine Tool Services today and discover how we can keep your bottom line green.

SKF Machine Tool Services is always looking to assist customers in meeting production goals through quality repairs and new spindles. When a Vermont company asked if SKF had a spindle that would reduce or eliminate motor coolant clogging problems and oil mist lubrication problems, SKF responded with the ASV Model HFC-100-2RB. This is an air-cooled grease packed spindle that delivers 5½ HP at 18,000 RPM.



By using this particular air-cooled spindle that customer **eliminated all the problems** that come with motor coolant systems. The cost of purchasing a coolant tank, coolant pump and cooling fan were eliminated. The coolant system problems, such as frequent contamination and clogging, were also eliminated. These **cost reductions** occurred because of reduced spindle failures due to plugged coolant lines, which result in, overheated motors. The total value of the **reduced costs** justified the spindle purchase; but there are even more benefits and savings.

The lifetime greased packed bearings will also produce savings by a reduction in lubrication failures and clogged lubricating ports. There is also the added benefit of not having any scraped parts as a result of oil dripping onto the finished product.

The major savings for the new spindles over the previous spindles comes in the form of **power savings**. The new spindles are cutting rock maple hardwood without using the full spindle power available. The power draw is approximately 10 amps under full load. The previous spindles would require approximately 22 amps to do the same job. The new 5½ HP spindles vs. the old 15 HP spindles

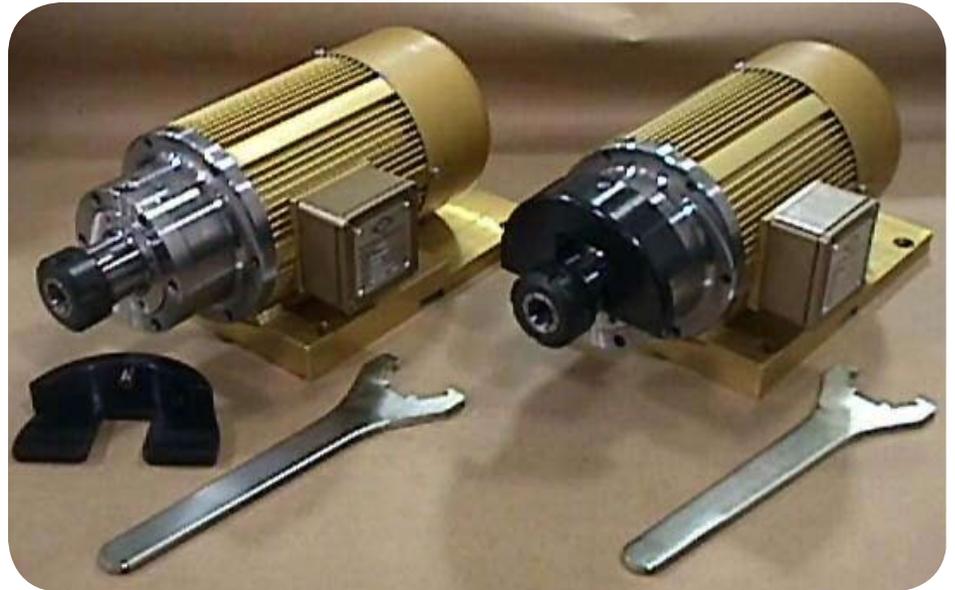
Here at SKF Machine Tool Services we have the customer in mind.

realized a real power savings by matching the spindle to the job required and not over-powering the spindle for the job. While the spindles are either at idle (non-cutting mode) or in the cutting mode, the power savings is still 11 to 13 amps. The excess idle current with the original spindles was wasting power.

These power savings result in an annual reduction of 7000 kilowatts per spindle, per 8-hour shift, per year. With four (4) spindles on a machine and running 3 shifts a day, 5 days a week the resulting power savings are substantial. These power savings are significant enough that the local power company allowed the customer

to construct new generating facilities, while providing the growing demand for power. The Vermont customer referenced in this analysis is focused on "Keeping Vermont Green".

The initial savings and return on investment happen so quickly that it is easy to forget there is more to come. The total savings will not be realized until the effects of all the components have had time to become factors. The fact that the operator no longer has to take time to monitor the coolant system and the mist lubrication system will play a role in cost savings. Other factors include: **longer spindle life**; and easier adjustment of machine due to no obstructions with hose



a **rebate** based on the replacement of less efficient equipment with more efficient equipment. This program is in effect in many areas of the country in an effort to reduce the need

lines. This also eliminates power requirements for the coolant system, air compressor and oil mist system. The machine operator can **perform the job more efficiently** without being concerned about oil mist and coolant problems. Management is pleased by **reduced cost and reduced down time**.

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