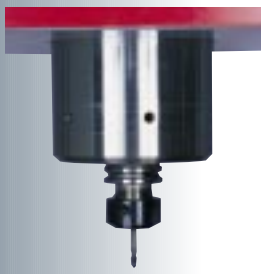


Vibra-Free

The Five Elements:

① Spindle



A specially designed, 42,000 RPM spindle with intelligent cooling and monitored and filtered mist lubrication keeps thermal growth in check hour after hour, month after month, year after year, while spinning at maximum speed all day and all night.

Balanced spindle housings eliminate chatter throughout the milling process. Special spindles are available for increased throughput for specialized work involving roughing. Oil-drip-free spindles are available to eliminate spotting on production and electrode graphite.

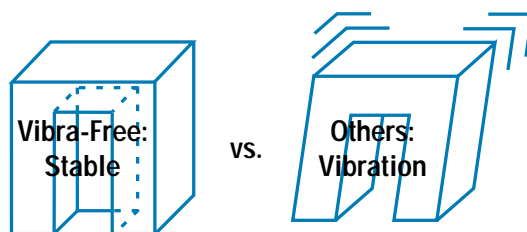
② High Performance Control System

High Precision Contour Control, a data server with more than two gigabytes of hard disk space and an ethernet link mean never having to worry about data starvation, file size or exhaustive file compression routines. Coupled with the world-renowned reliability of the Fanuc 16i system packed with options, the Vibra-Free is unmatched. But that's just the start. Unique algorithms and surfacing techniques designed to control thermal growth and maximize tool life come with the package.

We realize that there are dynamic differences from machine to machine which will alter precision cornering, overshoot, undershoot. That's why the 16i is equipped with unique parameters that allow the experienced Vibra-Free technicians to practically customize each machine for maximum performance.



③ Rigidity of Structure



Solid, specially-ribbed castings, including a massive base and a closed rigid bridge to support the suspended, moving head, ensure silk-smooth motion and virtual elimination of vibration during UHSHM.

Special precision ball-screws, special precision way-guides, unique K1-Seal™ way-wipers and way-guards all work in harmony to provide superior finish and tolerance for those parts that need them at lightening feeds and speeds.