Save the Spindles





- X Dried emulsion / oil, small chips and other partially resinous dirt residues on a toolholder taper can eventually become a serious interference at the machine tool spindle-toolholder interface
- X Dirtiness causes bad runout and stresses the spindle. Negative impacts are excessive tool wear out, low accuracy and even possible spindle revision
- X Risk of contamination of other toolholders which will be clamped in dirty spindle
- X Additional costs for new holders to replace dirty and destroyed toolholders



- ✓ Cleaned toolholders offer perfect runout accuracy
- \checkmark Increased runout accuracy of cutting tool
- ✓ Increased service of cutting toollife
- ✓ Protects machine spindle
- ✓ No change of taper tolerance after cleaning







