

## Machine Tool Service **SERVICE PLANS**



Konecranes Machine Tool Service's unique QLA (Quality – Lifetime – Availability/Accessory) Preventive Maintenance Program is designed to help you meet your production needs by assessing aspects of your machine that affect the Quality of your production, items that could reduce its Lifetime, and the Availability/Accessories that impact your machine's performance.

Our QLA Maintenance program is our most in-depth evaluation of your machine which includes a ballbar analysis, position and repeatability checks using our state-of-the-art interferometer laser system and a comprehensive inspection of all critical components.

We also recognize the need for a preventive maintenance plan that meets your minimum requirements, reduces the scheduled maintenance time while delivering the best value. For this type of program we have developed Service Plans where our highly qualified Service Engineers are trained to perform a thorough visual inspection of the operational safety of the machine as well as ball screws, spindle, transmission and gearbox, inspect, clean or replace filters, check oil level and top off as needed, inspect machine hydraulic and pneumatic systems and set pressures, visually inspect electrical devices and components, inspect electrical enclosure and panel wiring and provide a general cleaning. Work performed may vary depending on site conditions and agreed scope of work. All findings are submitted in a comprehensive report.



## MACHINING CENTER SERVICE PLAN

### Maintenance Items

- > Drain, clean suction filter and refill way lube tank (if applicable)
- > Inspect spindle drive belts and check tension
- > Inspect and clean all cooling fans, filters and vents
- > Inspect all wipers
- > Inspect and grease chip conveyor
- > Change hydraulic oil and filter
- > Clean the heat exchangers
- > Grease linear guides and ball screws (if applicable)
- > Fill spindle intensifier
- > Drain, clean and refill air oil unit
- > Change spindle cooler oil and filter
- > Grease the ATC cam box or carousel

### Geometry Inspections

- > Check machine level
- > Inspect ATC magazine and arm alignment
- > Check X, Y and Z axis backlash, adjust if necessary (via CNC parameters)
- > Check X, Y and Z axis ball screws and thrust bearings
- > Perform drawbar clamping force
- > Check column and spindle for squareness

## HORIZONTAL BORING MILL SERVICE PLAN

### Maintenance Items

- > Drain, clean suction filter and refill way lube tank (if applicable)
- > Inspect spindle drive belts and check tension
- > Inspect and clean all cooling fans, filters and vents
- > Inspect all wipers
- > Inspect and grease chip conveyor
- > Change hydraulic oil and filter
- > Clean the heat exchangers
- > Grease linear guides and ball screws (if applicable)
- > Fill spindle intensifier
- > Drain, clean and refill air oil unit
- > Change spindle cooler oil and filter
- > Grease the ATC cam box or carousel

### Geometry Inspections

- > Check machine level
- > Inspect ATC magazine and arm alignment
- > Check X, Y, Z and W axis backlash, adjust if necessary (via CNC parameters)
- > Check X, Y, Z and W axis ball screws and thrust bearings
- > Perform drawbar clamping force
- > Check column and spindle for squareness

## LATHE SERVICE PLANS

### Maintenance Items

- > Clean and grease chuck, check for proper jaw stroke
- > Drain, clean and refill the way lube tank
- > Clean the suction filter on the way lube pump
- > Inspect spindle drive belts and check tension (if applicable)
- > Inspect and clean all cooling fans, filters and vents
- > Clean and inspect spindle bearing drain ports
- > Inspect all wipers
- > Inspect and grease chip conveyor
- > Change hydraulic oil and filter
- > Clean the heat exchanger
- > Change the headstock oil and filter (if applicable)
- > Inspect spindle brake assembly (if applicable)\*
- > Check "M" tool drive assembly (if applicable)\*

*\*Four axis and multifunction lathe*

## GANTRY/BRIDGE MILL SERVICE PLAN

### Maintenance Items

- > Drain, clean suction filter and refill way lube tank (if applicable)
- > Inspect spindle drive belts and check tension
- > Inspect and clean all cooling fans, filters and vents
- > Inspect all wipers
- > Inspect and grease chip conveyor
- > Change hydraulic oil and filter
- > Clean the heat exchangers
- > Grease linear guides and ball screws (if applicable)
- > Fill spindle intensifier
- > Drain, clean and refill air oil unit
- > Change spindle cooler oil and filter
- > Grease the ATC cam box or carousel

### Geometry Inspections

- > Check machine level
- > Inspect ATC magazine and arm alignment
- > Check X, Y, Z, W, A, B and C (as applicable) axis backlash, adjust if necessary (via CNC parameters)
- > Check X, Y, Z, W, A, B and C (as applicable) axis ball screws, thrust bearings or rack and pinion
- > Perform drawbar clamping force
- > Check column and spindle for squareness

**NOTE:** Our standard service plan proposals do not include supplying and disposing of oils, filters and any additional replacement parts but can be included upon request.