

# **Preventative Maintenance**

Regularly scheduled inspections maintain a machine's efficiency, durability, and reliability. Ensure your machines are running at top performance with Toyoda's preventative maintenance services.



# Level 1

- · Clean spindle taper
- Clean and remove chips from the machine (Customer to supply vacuum, towels, etc., and dispose of waste)
- Move covers back, clean, and inspect
- Check all axis ways and way wipers
- Check ballscrew lubrication
- Check operator panel lamps and push button switches
- Check and adjust the system hydraulic and pneumatic pressures
- Check spindle oil chiller for proper operation (Customer is responsible to have coils and filter cleaned)
- Check door interlocks and E-stops
- Backup the control to disk
- Check way lubrication system for proper operation
- Check spindle oil lubrication system for proper operation
- Check air and oil mixing valve lines
- Check and adjust the counterbalance pressure (if applicable)
- Inspect magazine pocket
- Clean heat exchanger filters
- Check and clean/replace coolant filters

# TOYODA UPPORT Our solutions define us.

Every Toyoda machine comes with the unmatched expertise of Toyoda Service. From replacement parts to technical support, our team of experts will ensure you're running right.

# Level 2

- Replace hydraulic oil and filters (Customer responsible to supply and dispose of fluids)
- Check machine level, geometry, and backlash adjustments
- Inspect and adjust gibs on X, Y and Z axes
- Zero position adjustment on all axes
- Table pad checks
- Spindle clamp force check
- Check tool changer alignment
- Check each magazine pocket
- Check magazine for chain tension, tool station condition door switches, etc.
  - (If this needs to be adjusted, request procedure)
- Check ways or guide rails for damage
- Replace all way wipers
  (if applicable; Customers should order before service arrival)
- Drain, clean, and refill coolant tanks
   (Customer to empty, clean, and dispose of old coolant
   and supply new fluids)
- Change all machine batteries, control memory, and all drives

# **Additional Services Available**

- Laser calibration
- Ballbar
- B-axis calibration (Autocollimator)
- MAML and MAMC PM: Checks roller packs, TLS, racks, turret, robot and belts, all around cleaning.
- FMS PM: Checks roller packs and guideways, load stations, buffers, front of MC's chip reader, vehicle XYZ movement, power rail wear, CAT track inspection, cell cabinet

#### Note

- Customer must purchase filters separately and in advance of the PM services.
- Customer must purchase servo and control batteries separately and in advance of the PM services.
  - Note 1: PM prices do not include travel time or travel related expenses (plane fare, car rental, hotel, airport parking, meal charges, etc.). These charges will be in addition to the hours listed above.
  - Note 2: Cleaning supplies, fluids, repair parts and any shipping charges will be the responsibility of the customer.
  - Note 3: Machines must be fully functional prior to starting PM services.
  - Note 4: If it is determined that repair parts and/or service is needed beyond the scope of the PM services, those parts and services will be quoted and charged separately.
  - Note 5: The particular items checked/addressed during PM services may vary for different machine models/optional equipment.
  - Note 6: Prices are per machine.

# **Service & Technical Support**

Service and technical support is available Monday through Sunday, 7 a.m. to 11 p.m. CST. For assistance outside our typical business hours of Monday through Friday, 8 a.m. to 5 p.m., please only use our main 1-800-257-2985 number.

#### In the United States:

Call: 1-800-257-2985 Fax: (847) 253-2381

E-mail: service@toyoda.com

techsupport@toyoda.com

### In Mexico:

Call: (847) 257-2985

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Parts orders are received and shipped until 6:30 p.m. CST Monday through Friday.

## In the United States:

Call: 1-800-257-2985 Fax: (847) 255-0188

### In Mexico:

Call: (847) 632-9351