HMC Training Syllabus

Introductions and Tour

- Training course overview
- JTEKT Machinery Support department overview
- Meet service staff and parts department
- Facility tour

Product Line

- Product line information
- Training USB overview (additions to the product)
- Product advancement and current product development

Training

- Pre-Installation requirements
- Troubleshooting awareness
- Machine component

Device Checks

- Start up faults and checks
- Spindle chiller
- Coolant system
- Hydraulic system
- Pneumatic system
- Lubrication systems

Geometric Alignment

- Geometry checks (classroom)
- Setting machine zero positions

Magazine & ATC Alignment

- Leveling
- ATC squareness and alignments
- 2nd reference setting

Review of Electrical Prints

- How to read electrical prints
- How to use with machining center ladder to troubleshoot machining center

Review of Machining Center Maintenance Manual

- Show recommended checks
- Look at spare parts list

How to Back Up Machining Center

- TDD Explanation and Password Requests

Review of Machine Safety Systems

- PILZ safety system
- Fanuc DCS safety system

M Code Operation

Manual Function

Error Recovery

ATC (Automatic Tool Changer)

- Tool changer recovery
- Disassemble, inspect and reassemble
- Review (2) types of arms
- Alignment on machining center
    - Adjust arm and axis positions

- Adjust parameters

APC (Automatic Pallet Changer)

- Pallet changer recovery
- PC Inspections (pallet changer)
  - PC assembly review
  - Adjust PC position
- Programmable flow control adjustment and replacement
- Beta drive replacement

Spindle Overview

- Spindle inspection reports
- Spindle geometry checks
- Spindle room visit
- Drawbar designs
- Clamping cylinder setup

Warranty Parts Request

- Forms
- Contacts
- Procedures

Service Tech Requests

- Procedures

HMC Training Certification Presentation

- Question and Answer