

Okuma

Mechanical Maintenance

for

Grinders

Course Code : MA-401

Prerequisite : None

Credits : 0

Course length : 4.5 days

Class Size : 6 persons

COURSE OBJECTIVES - This course is designed for the Service person who has had only limited exposure to Okuma Grinders or for those who are first-time CNC machine tool users. Although one week is too short to become completely familiar with the machine, we feel enough material can be covered to enable the student to reach these four main goals.

1. **LEARN** how the different systems of the machine function both individually and in relation to each other, and to become aware of the preventive maintenance required to keep the machine running in top condition.
2. **DIAGNOSE** problems using your own experience, the manuals provided with this course, your machine, and the machine's own self-checking capabilities.
3. **DISCUSS** problems and solutions by phone first with your distributor's service staff or after you have exhausted that source, then with OKUMA.
4. **PERFORM** simple repairs that can save expensive service calls and downtime.

Course emphasis is a blend of classroom instructional theory, time spent on the machine tool, and individually displayed skills.

Comprehension of the topics is measured by both actual demonstration and an exam.

COURSE REGISTRATION - please contact *Von Robertson* at (803-981-7000) the Institute for Manufacturing Productivity to obtain program availability dates, or check our website <http://imp.okuma.com>

MECHANICAL MAINTENANCE
MA 401 GRINDER COURSE OUTLINE

MONDAY

1. Introduction and Formalities
2. Class Goals and Course Outline
3. Documentation Overview
4. Safety Precautions
5. Machine Installation
 - Oil Requirements
6. Power Requirements

7. Lunch

8. Outline of Control Panels
9. Fundamental Machine Operation Procedure
 - MDI Operation
 - Spindle Rotation
 - User Stroke Limits
10. Alarms
11. Hands on Machine Leveling

TUESDAY

1. Trouble Shooting in the Lab
2. Lubrication Distribution
3. Workhead Disassembly

4. Lunch

5. Workhead Disassembly Continued

WEDNESDAY

1. Workhead Reassembly
2. Workhead Alignment
3. Lunch
4. Wheel Spindle Construction
 - Alignments
 - Adjustments
 - Testing
5. Hands on in lab

THURSDAY

1. Troubleshooting in lab
2. Footstock Alignments
3. Ballscrew
 - Thrust bearings
 - Replacement
 - Alignment checks
4. Lunch
5. Ballscrews Continued
6. Gib Adjustment
7. NC Work Locator Adjustments

FRIDAY

1. Hydraulic Unit Circuit
2. Hydrostatic Way Adjustments