

Okuma

MacTurn Mechanical Class

for

MacTurn 250/350 Machines

Course Code : MA-121

Prerequisite : None

Credits :3.5 CEU's

Course length : 4.5 days

Class Size : 6 persons

COURSE OBJECTIVES - This course is designed for the Service person who has had limited exposure to Okuma lathes. 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** to analyze the problem and know what needs to be aligned. Learn how to realign the machine.
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.

This machine is too complex to completely cover in one week. We have added follow up classes H1 (Upper) Turret alignment and rebuild MA-122 Major Machine alignments MA-123.

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

MECHANICAL MAINTENANCE
MA-121 MacTurn Basic Mechanical Class
MacTurn 250/350 Machines
COURSE OUTLINE

MONDAY

1. Introduction and Formalities
2. Class Goals and Course Outline
3. Documentation Overview
4. Safety Precautions
5. Classroom discussion
 - Installation
 - Oil Requirements
 - Power Requirements
 - Outline of the Control
 - Machine Start Up
 - Axis Movement
 - MDI Operation
 - Alarms
 - Machine Leveling
6. Lunch
7. Hands On

TUESDAY

1. Classroom discussion
2. Lubrication
 - Hydraulics
3. Upper Turret Alignment
4. Lower Turret Operation
 - Lower Turret Alignment
5. Lunch
6. Hands On

WEDNESDAY

1. Troubleshooting
2. Classroom discussion
 - Ball Screws
3. Lunch
4. Hands On

THURSDAY

1. Classroom discussion
2. ATC Automatic Tool Changer
3. Lunch
4. Hands on

FRIDAY

1. Spindle Assembly
 - Hydraulic Cylinder Alignment
 - Chucks and Cylinders
 - Disc Brakes
- Finished by 11am

