

Training INFORMATION

MRSI
MYCRONIC



OVERVIEW

Training at MRSI Systems

MRSI is currently offering training programs on die bonding and epoxy dispensing solutions at our Tewksbury, MA facility. These courses are taught by dedicated trainers who are MRSI Applications Engineers with many years of experience. The programs are tailored to suit each customer's needs, including concepts of robot orientation, teaching alignments, the die bonding process, and production setup.

Training is a critical component of efficient, productive, and accurate manufacturing.

At MRSI we offer many different courses to fit your needs. We can train all personnel who work with the equipment, ranging from basic operators, programmers, advanced programmers, repair technicians, and preventative maintenance technicians. The hands-on sessions are taught over a 3-5 day period depending on the specific program.

Benefits

- Formal training includes the proper way to operate MRSI machines and concepts of how the MRSI machines work.
- Learn how to set up, program, and operate the MRSI die bonders, and how to enhance the performance of existing programs.
- Optimize your current processes after the training and increase efficiency.
- Learn the procedure of teaching, and also learn how to analyze and fix the processes.
- Save money by understanding the machines and avoid unnecessary service calls.
- Provide the trainees with a solid understanding of the concepts of pick and place with the MRSI die bonders.
- Trainees are invited to bring samples of their complex applications.
- Learn advanced maintenance capability for the MRSI machines.

We hope to see you soon!





COURSE LIST

Introductory Training

MRSI Machines



Objective: The purpose of this course is to introduce the customer to MRSI dispensing and assembly systems. The trainee will gain basic knowledge of how to program and operate the systems.

The following items will be covered in this course:

- Concepts of Table and Robot Orientation
- System Terminology
- Concepts of the Vision and Motion Systems
- Teaching of Programs, Patterns, Parameters, Waffle Packs, and Die
- Teaching of Alignments, Mapping, Regions, and local alignments
- Introduction to Software and File Management
- Introduction to Production Setup, Operation, and Error Handling

Desired Results: By the end of the course, the trainee will be able to set up the system and operate it in production mode. Trainees will be able to teach and run simple programs.

Pre-requisite: None

Class Length: 5 days

Note: Course materials and lunch will be provided for each trainee.



Programming and Operations Training

MRSI Machines



Objective: The purpose of this course is to provide the trainee with the knowledge of how to program and operate the MRSI system.

The following items will be covered in this course:

- System Terminology and Concepts of Robot Orientation
- How to Use the Vision and Motion Systems
- Teaching Input Stations, Waffle packs, and Die
- Teaching Output Station, Tray Schemes, and Alignments
- Teaching and Modifying Substrate Programs
- Database Usage and Software and File Management
- Production Setup, Operation, and Error Handling

Desired Results: The trainee will be able to set up the MRSI system and operate it in production mode. Trainees will be able to teach the production programs and manage the files.

Pre-requisite: Working knowledge of MRSI die bonders.

Class Length: 5 days

Note: Course materials and lunch will be provided for each trainee.



Advanced Programming and Operations Training MRSI Machines



Objective: The purpose of this course is to provide the trainee with a solid understanding of the concepts of pick and Place with the MRSI system. Trainees are invited to bring samples of their complex applications.

The following items will be covered in this course:

- Understanding the System, Robot, Table, and Program Orientation
- Use of all components of the Vision System
- Teaching Input Stations, Waffle packs, Die, Alternate Die
- Teaching and Use of Global, Edge, Pad, and Local Alignments
- Teaching, Manipulating, and Merging Substrate Programs
- Manipulation of the Database Programs and File Management
- Production Setup, Operation, and Error Handling
- Programming with Customer's Die and Substrates

Desired Results: The trainee will be able to set up, program, and operate the MRSI system. They will be able to enhance the performance of existing programs and teach the system to their colleagues within their organization.

Pre-requisite: Working knowledge of MRSI die bonders.

Class Length: 5 days

Note: Course materials and lunch will be provided for each trainee.



Technical and Maintenance Training MRSI Machines



Objective: The purpose of this course is to provide the trainee with a basic technical understanding of the MRSI system.

The following items will be covered in this course:

- System Initialization, Orientation, Alignment, and Calibration
- Use of the Vision and Motion Systems
- Teaching of the Input Alignment, including Die Teaching
- Teaching the Output Alignments, including Substrate Placement
- Software and File Management, Backup, and Recovery
- Production Operation Sequence and Error Handling
- Camera Calibration and Tip Alignment
- Power, Air, Vacuum, and Axis Motion Operation and Troubleshooting
- Alignment and Calibration of Theta Axis, Gripper, and Strain Gauge
- Teach Tip and Collet Changer, Collet Face, and Vacuum Calibration
- Component Operation, Alignment, Maintenance, and Troubleshooting

Desired Results: The trainee will be able to set up, align, and calibrate the MRSI system. Trainees will be able to troubleshoot and repair common problems of the system.

Pre-requisite: Working knowledge of MRSI die bonders.

Class Length: 5 days

Note: Course materials and lunch will be provided for each trainee.

Advanced Technical and Maintenance Training MRSI Machines



Objective: The purpose of this course is to provide the trainee with an advanced maintenance capability for the MRSI system

The following items will be covered in this course:

- System Initialization, Orientation, Alignment, and Calibration
- Use of the Vision and Motion Systems
- Component Operation, Alignment, Maintenance, and Troubleshooting
- PMAC Review and Debugging
- Motor Amplifiers
- Indexer Service and Programming
- Alignment and Calibration of Theta Axis and Strain Gauge
- Gripper Replacement and Related Calibrations
- Motor Replacement and Related Calibrations
- Camera Calibration and Tip Alignment
- Power, Air, Vacuum, and Axis Motion Operation and Troubleshooting
- Production Operation Sequence and Error Handling
- Software and File Management, Backup, and Recovery
- Schematics Review

Desired Results: The trainee will be able to set up, align, and calibrate the MRSI system trainees will be able to troubleshoot and repair common problems of the system.

Pre-requisite: Prior Equipment repair experience required.

Class Length: 3 days

Note: Course materials and lunch will be provided for each trainee.

QUICK REFERENCE GUIDE

MRSI Training Courses

Quick Reference Guide

Training Course	# Days	Who should attend?
Introductory Training	5	People in charge of running the MRSI machines. New users.
Programming and Operations Training	3	People in charge of running the MRSI machines. Programmers for the machine.
Advanced Programming and Operations Training	5	People who have operated and programmed the MRSI machines for at least 6 months. Process and Manufacturing engineers.
Technical and Maintenance Training	5	People who are in charge of Preventative Maintenance and Repair of the machine.
Advanced Technical and Maintenance Training	3	People who are in charge of Preventative Maintenance and Repair of the machine.

HOW TO REGISTER FOR A CLASS

MRSI Training Courses

How to register for a class?

To register for one of our classes please contact the Sales department at sales.mrsi@mycronic.com or call +1 978 667 9449 for more details about these programs.

Contact Us

Our pledge to you is to provide you with the most thorough training available. If you have any questions, please do not hesitate to contact us directly.

MRSI Systems
554 Clark Road
Tewksbury, MA 01876
Tel: +1 978 667 9449
sales.mrsi@mycronic.com

Have a special request? Want a special training course put together just for your company or employees? Simply contact us and we will collaborate with you to design and schedule a customized class just for you.

We encourage trainees to bring samples of their complex applications.

