



TRAINING COURSE CATALOG



EXPERIENCE COUNTS

For more than 30 years, McElroy Manufacturing, Inc. has been the only pipe fusion machine manufacturer to continuously offer advanced training. Course offerings are meant to enhance your efficiency, productivity and safety in the proper use of McElroy machines. McElroy University classes are structured so that the skills learned and the machines used in each class closely match the types of machines found together on the jobsite. We offer training at our facility or yours. Our uniquely qualified McElroy University course instructors are professionals, each offering years of industry experience.

Tuition for each course includes lunches, course materials and a Certificate of Completion. Online registration, as well as up-to-date course offerings and dates, is available at www.mcelroy.com/university.



OPERATOR TRAINING AND QUALIFICATION

McElroy University operator qualification classes help students of all levels to develop and refine fusion skills on McElroy equipment. With an instructional mix of 30% classroom and 70% hands-

FOR THE MOST UP-TO-DATE COURSE INFORMATION AND TO

on, students learn the basic mechanics of machine operations and the theory behind it for an overall understanding.

For all fusion operator qualification classes, students will have a written and hands-on qualification test. Testing is based on domestic and international qualifications standards, along with the instruction students receive during operator training. McElroy University tests serve both as an indicator of their knowledge of industry standards and pipe fusion skill set. Upon successful completion of the test, students receive an operator qualification certificate and wallet card. Qualification is valid for two years.



TROUBLESHOOTING AND REBUILD SCHOOLS

Keeping equipment and tooling maintained protects your investments. That's why McElroy offers a variety of troubleshooting and rebuild classes based on machine type and size. These classes teach mechanics and technicians the various aspects of rebuilding a fusion machine, as well as, maintaining the equipment to perform at peak efficiency.

CUSTOMIZED TRAINING

In addition to our standard course offerings, McElroy University can create customized training sessions with any of your McElroy fusion machines to fit your specialized situation. This private training can take place at our Technical Center facilities in Tulsa where all other schools are taught, at your location, or even on the jobsite and is available in multiple languages if necessary.



**EQUIPMENT
COVERED**

MINI-MC™, TLC, SOCKET
FUSION, SIDEWINDER™, 2LC,
2CU, PIT BULL® 14, PIT BULL® 26



**M
MI**
McElroy Manufacturing
The leader by choice
www.mcelroy.com





SMALL DIAMETER OPERATOR QUALIFICATION

The Small Diameter Operator Qualification session prepares students who work in small diameter applications ($\frac{1}{2}$ " CTS to 6" DIPS - 16mm to 180mm) to understand the theory of fusion and properly fuse small diameter pipe. Participants go hands-on with our smallest machines, the Mini-Mc™ and 1LC, and learn saddle fusion techniques on the Sidewinder™. The course also covers some of McElroy's most popular machines such as the Pit Bull® 14, 2LC and Pit Bull® 26.

THIS SESSION COVERS:

- Fusion Theory
- Proper Fusion Techniques
- Sidewall Fusion
- Application Tips
- Equipment Design
- Troubleshooting Resources
- DOT Requirements (PHMSA)
- Preventative Maintenance
- ASTM Standards

With McElroy University, students put theory and instruction into practice. Each Operator Qualification session is divided into approximately 30% classroom instruction and 70% hands-on application to provide better learning opportunities and real-world experience with McElroy equipment and pipe fusion processes.

After Operator Qualification training is complete, students undergo testing, both written and hands-on, to ensure they possess the skills and knowledge required in the field as defined by ASTM standard F2620 and PPI technical reports TR-33 and TR-41. Students who successfully pass the test receive a McElroy University Small Diameter Operator Qualification training certificate and wallet card. Certification lasts for 2 years and can be renewed with follow-up testing.

AGENDA

PRINCIPLES OF HEAT FUSION

- Butt Fusion Procedures
- Interface Pressures
- Temperature Time Cycles
- Cooling Cycles
- Testing Procedures

HOT TAP OPERATION - VALVE AND SQUEEZE OFF

- Students Hands-On

FUSION PRESENTATION - MINI-MC™

- Socket Fusion
- Machine & Accessories List
- Review Operations
- Preventative Maintenance
- Fusion Demonstration

FUSION PRESENTATION - 2LC, 2CU, PIT BULL® 14, PIT BULL® 26, SIDEWINDER™

- Machine Design
- Features
- Machine & Accessories List
- Review Operations
- Preventative Maintenance
- Fusion Demonstration

DISCUSS FITTING CAPABILITIES

- Service Saddles
- Tapping Tees
- H.V. Tapping Tees
- Branch Saddles
- Students Hands-on

TESTING

FOR COURSE INFO AND TO REGISTER ONLINE, VISIT
www.mcelroy.com/university

SESSION LENGTH: 3 DAYS TUITION: \$750

**EQUIPMENT
COVERED**

28, 250, 412, 618,
TRACSTAR® 500,
DATALOGGER®





MID-RANGE DIAMETER OPERATOR QUALIFICATION

While taking part in the Mid-Range Diameter Operator Qualification session (covering pipe sizes 2" IPS to 20" OD - 63mm to 500mm) students will go hands-on with many of the McElroy rolling, TracStar® and DynaMc™ units, including the 28, 250, 412, 618, as well as the popular TracStar® 500 – the world's first tracked fusion machine. Successful pipe fusion skills will be supplemented by using the DataLogger® to quickly analyze and check each fusion joint made.

THIS SESSION COVERS:

- Fusion Theory
- Proper Fusion Techniques
- Sidewall Fusion
- Application Tips
- Equipment Design
- Troubleshooting Resources
- DOT Requirements (PHMSA)
- Preventative Maintenance
- ASTM Standards

With McElroy University, students put theory and instruction into practice. Each Operator Qualification session is divided into approximately 30% classroom instruction and 70% hands-on application to provide better learning opportunities and real-world experience with McElroy equipment and pipe fusion processes.

After the Operator Qualification training, students undergo testing, both written and hands-on, to ensure they possess the skills and knowledge required in the field as defined by ASTM standard F2620 and PPI technical reports TR-33 and TR-41. Students that successfully pass the test receive a McElroy University Mid-Range Operator Qualification training certificate and wallet card. Certification lasts for 2 years and can be renewed with follow-up testing.

AGENDA

PRINCIPLES OF HEAT FUSION

- Butt Fusion Procedures
- Interface Pressure
- Temperature Time Cycles
- Cooling Cycles
- Testing Procedures

HOT TAP OPERATION - VALVE AND SQUEEZE OFF

- Students Hands-On

FUSION PRESENTATION - 28 AND 250

- Machine & Accessories List
- Features
- Review Operations
- Preventative Maintenance
- Fusion Demonstration

FUSION PRESENTATION - 412, 618

- Machine & Accessories List
- Features
- Review Operations
- Preventative Maintenance
- Fusion Demonstration

DATALOGGER® PRESENTATION

- Unit Initialization
- Operation
- Joint Report Analysis

TESTING

**FOR COURSE INFO AND
TO REGISTER ONLINE, VISIT**
www.mcelroy.com/university

SESSION LENGTH: 3 DAYS TUITION: \$750

**EQUIPMENT
COVERED**

TRACSTAR® 630, 824,
TRACSTAR® 900, 1236, 1648,
2065, 1600, DATALOGGER®





LARGE DIAMETER OPERATOR QUALIFICATION

This is big! The Large Diameter Operator Qualification session is for students who work on jobsites that require HDPE pipe from 8" IPS all the way up to 65" OD (225mm to 1600mm). Participants get the opportunity to operate some of McElroy's biggest machines including the MegaMc® 824, TracStar® 900 and the MegaMc® 1600. Students also learn how to properly analyze and document fusion joints using the DataLogger®.

THIS SESSION COVERS:

- Fusion Theory
- Proper Fusion Techniques
- Sidewall Fusion
- Application Tips
- Equipment Design
- Troubleshooting Resources
- DOT Requirements (PHMSA)
- Preventative Maintenance
- ASTM Standards

With McElroy University, students put theory and instruction into practice. Each Operator Qualification session is divided into approximately 30% classroom instruction and 70% hands-on application to provide greater learning opportunities and real-world experience with McElroy equipment and pipe fusion processes.

After the Operator Qualification training is complete, students undergo testing, both written and hands-on, to ensure they possess the skills and knowledge required in the field as defined by ASTM standard F2620 and PPI technical reports TR-33 and TR-41. Students that successfully pass the test will receive a McElroy University Large Diameter Operator Qualification training certificate and wallet card. Certification lasts for 2 years and can be renewed with follow-up testing.



AGENDA

PRINCIPLES OF HEAT FUSION

- Butt Fusion Procedures
- Interface Pressure
- Temperature Time Cycles
- Cooling Cycles
- Testing Procedures

MEGAMC® FUSION PRESENTATION

- Machine & Accessories List
- Features
- Review Operations
- Preventative Maintenance
- Fusion Demonstration

DATALOGGER® PRESENTATION

- Unit Initialization
- Operation
- Joint Report Analysis

TESTING

FOR COURSE INFO AND TO REGISTER ONLINE, VISIT
www.mcelroy.com/university

SESSION LENGTH: 4 DAYS TUITION: \$750





FUSION INSPECTOR TRAINING AND QUALIFICATION

Inspector Qualification School was created to satisfy a demand from the industry for a training course designed for the polyethylene welding inspector. In the school, we will explain the theory of butt fusion of polyethylene pipe and the process used to join it. The information includes the use of inspection checklists and a discussion of the critical factors involved in the fusion welding processes. This includes butt fusion, electro-fusion, and sidewall fusion. Students also receive an in-depth explanation on the use and analysis of McElroy DataLogger® records.

In addition to inspectors, project managers, consulting engineers, quality assurance managers, and sales professionals can benefit from this training.



After the Fusion Inspector training is complete, students undergo practical, hands-on testing to ensure they possess the skills and knowledge required in the field as defined by ASTM standard F2620 and PPI technical reports TR-33 and TR-41. Students that successfully pass the test will receive a McElroy University Fusion Inspector training certificate and wallet card. Certification lasts for 2 years and can be renewed with follow-up testing.

THIS SESSION COVERS:

- Principles of Heat Fusion
- Fusion Procedures
- Inspector Checklists
- Fusion DataLogging Procedures
- Fusion DataLogging Analysis
- ASTM Standards

AGENDA

OVERVIEW OF PROPER FUSION PROCEDURES

- Manual Fusion
- Socket Fusion
- Sidewall Fusion Machine
- Hydraulic Fusion
- DataLogger™
- Electro-fusion

PROPER USE OF THE IN FIELD™ TENSILE TESTER

APPLICATION AND USE OF INSPECTOR CHECKLIST

PROPER ANALYSIS TECHNIQUES OF DATALOGGER™ RECORDS

TESTING

FOR COURSE INFO AND TO REGISTER ONLINE, VISIT
www.mcelroy.com/university

SESSION LENGTH: 3 DAYS TUITION: \$750

**EQUIPMENT
COVERED**

MINI-MC™, 1LC, SOCKET
FUSION, SIDEWINDER™, 2LC,
2CU, PIT BULL® 14, PIT BULL® 26



McELROY





SMALL DIAMETER TROUBLESHOOTING AND REBUILD

By keeping equipment in good working order, jobsites experience less downtime. In the Small Diameter Troubleshooting and Rebuild session, students learn how to properly maintain and overhaul McElroy small-diameter machines that butt fuse pipe ranges from ½" CTS to 6" DIPS (16mm to 180mm). Participants go hands-on and repair a Multi-Mc™ heater, rebuild a Pit Bull® 14 machine, and troubleshoot a Sidewinder™.

THIS SESSION COVERS:

- Equipment Evaluation
- Heater Repair
- Facer Repair
- Carriage Repair
- Rebuild Techniques
- Troubleshooting Techniques
- Preventative Maintenance
- Parts Identification

With McElroy University, students put theory and instruction into practice. Each Troubleshooting and Rebuild session is divided into approximately 30% classroom instruction and 70% hands-on application to provide greater learning opportunities and real-world experience with McElroy equipment and HDPE pipe fusion processes. To prepare students for actual challenges they may face in the field, each Troubleshooting and Rebuild class works on machines that arrive straight from the field in need of maintenance or repair.

After the Troubleshooting and Rebuild training is complete, students receive a McElroy University Small Diameter Troubleshooting and Rebuild training certificate.

FOR COURSE INFO AND TO REGISTER ONLINE, VISIT
www.mcelroy.com/university

AGENDA

PARTS FINDER AND ASSEMBLY DRAWINGS

MULTI-MC™ HEATER REPAIR

- Inspection Procedures
- Power Requirements
- Plug Types
- Ohm's Law
- Wiring Diagrams
- Assembly Procedures
- Testing and Adjustment
- Handle Conversion

MINI-MC™ FUSION MACHINE

- Components and Specifications
- Inspection Procedures
- Preventative Maintenance
- Rebuild Process

SOCKET FUSION TOOLING

- Components and Specifications
- Inspection Procedures
- Preventative Maintenance
- Rebuild Process

SIDEWINDER™ FUSION MACHINE

- Components and Specifications
- Inspection Procedures
- Preventative Maintenance
- Rebuild Process

2LC/2CU, PIT BULL® 14 AND PIT BULL® 26 FUSION MACHINES

- Components and Specifications
- Inspection Procedures
- Preventative Maintenance
- Rebuild Process

TESTING

SESSION LENGTH: 3 DAYS TUITION: \$750

EQUIPMENT COVERED

28, 250, DYNAMIC™ EP,
DYNAMIC™ HP, DYNAMIC™
AUTO, 412, 618, DATALOGGER®





MID-RANGE DIAMETER TROUBLESHOOTING AND REBUILD

For the occasions when fusion machines need repairs or simply routine maintenance, knowing how to correctly troubleshoot and overhaul them means less downtime. Covering pipe sizes from 2" IPS to 20" OD (63mm to 500mm), students in the Mid-Range Diameter Troubleshooting and Rebuild session learn helpful techniques to quickly identify potential problems, competently make repairs and rebuild equipment when necessary, as well as acquire the skills to properly maintain McElroy fusion machines in real-world situations.

THIS SESSION COVERS:

- Equipment Evaluation
- Heater Repair
- Facer Repair
- Carriage Repair
- Rebuild Techniques
- Troubleshooting Techniques
- Preventative Maintenance
- Parts Identification

With McElroy University, students put theory and instruction into practice. Each Troubleshooting and Rebuild session is divided into approximately 30% classroom instruction and 70% hands-on application to provide greater learning opportunities and real-world experience with McElroy equipment and HDPE pipe fusion processes. To prepare students for the actual challenges they face in the field, each Troubleshooting and Rebuild class works on machines straight from the field in need of maintenance or repair.

After the Troubleshooting and Rebuild training is complete, students receive a McElroy University Mid-Range Diameter Troubleshooting and Rebuild training certificate.

**FOR COURSE INFO AND
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AGENDA

PARTS FINDER AND ASSEMBLY DRAWINGS

HEATER REPAIR

- Inspection Procedures
- Power Requirements
- Plug Types
- Ohm's Law
- Wiring Diagrams
- Assembly Procedures
- Testing and Adjustment
- Handle Conversion

28 AND 250 FUSION MACHINES

- Components and Specifications
- Inspection Procedures
- Preventative Maintenance
- Rebuild Procedures

412 AND 618 FUSION MACHINES

- Components and Specifications
- Inspection Procedures
- Preventative Maintenance
- Rebuild Procedures

TESTING

SESSION LENGTH: 3 DAYS TUITION: \$750

**EQUIPMENT
COVERED**
ALL TRACSTAR®
FUSION MACHINES





TRACSTAR® TROUBLESHOOTING AND REBUILD

For students who regularly work on the McElroy TracStar® line of fusion machines, this session is tailored especially for you. Participants in the TracStar Troubleshooting and Rebuild course focus solely on the maintenance and repair of TracStar line of machines. Students work with units from real-world circumstances. They learn routine maintenance, how to identify problems, make repairs and rebuild equipment when necessary.

THIS SESSION COVERS:

- Equipment Evaluation
- Heater Repair
- Facer Repair
- Carriage Repair
- Rebuild Techniques
- Troubleshooting Techniques
- Preventative Maintenance
- Parts Identification



With McElroy University, students can put theory and instruction into practice. Each Troubleshooting and Rebuild session is divided into approximately 30% classroom instruction and 70% hands-on application to provide greater learning opportunities and real-world experience with McElroy equipment and HDPE pipe fusion processes. To prepare students for actual challenges they may face in the field, each Troubleshooting and Rebuild class works on machines that arrive straight from the field in need of maintenance or repair.

After the Troubleshooting and Rebuild training is complete, students will receive a McElroy University TracStar® Troubleshooting and Rebuild training certificate.

AGENDA

RESOURCES

- McElroy Website
- Parts Finder
- Electrical Schematics
- Terminology and Symbols
- 3-Phase Power
- Ohm's Law

THEORY OF HYDRAULICS

- Hydraulic schematics

MACHINE ADJUSTMENTS

- Tracks
- Pressures
- Voltage

GENERATOR REBUILD

FUSION MACHINE REPAIR AND REBUILD

TESTING

**FOR COURSE INFO AND
TO REGISTER ONLINE, VISIT**
www.mcelroy.com/university

SESSION LENGTH: 4 DAYS TUITION: \$750

**EQUIPMENT
COVERED**

824, 1236,
1648, 2065, 1600,
DATALOGGER®



SINCE 1981



LARGE DIAMETER TROUBLESHOOTING AND REBUILD

By regularly maintaining your McElroy equipment, you can ensure longer product life and better protection of your investment. Students in the Large Diameter Troubleshooting and Rebuild session learn the skills to eliminate machine downtime by quickly assessing potential problems, repairing machines, and performing general maintenance on the largest McElroy product offerings. Training encompasses diagnostics and repair of heaters, generators, control systems, and more.



THIS SESSION COVERS:

- Equipment Evaluation
- Parts Identification
- Preventative Maintenance
- Troubleshooting Techniques
- Rebuild Techniques

With McElroy University, students put theory and instruction into practice. Each Troubleshooting and Rebuild session is divided into approximately 30% classroom instruction and 70% hands-on application to provide greater learning opportunities and real-world experience with McElroy equipment and HDPE pipe fusion processes. To prepare students for actual challenges they may face in the field, each Troubleshooting and Rebuild class works on machines straight from the field in need of maintenance or repair.

After the Troubleshooting and Rebuild training is complete, students receive a McElroy University Large Diameter Troubleshooting and Rebuild training certificate.

AGENDA

PARTS FINDER AND ASSEMBLY DRAWINGS

HEATER REPAIR

- Inspection Procedures
- Power Requirements
- Plug Types
- Ohm's Law
- Wiring Diagrams
- Assembly Procedures
- Testing and Adjustment
- Handle Conversion

824, 1236, 1648, 2065 AND 1600 FUSION MACHINES

- Components and Specifications
- Inspection Procedures
- Preventative Maintenance
- Rebuild Procedures

TESTING

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SESSION LENGTH: 4 DAYS TUITION: \$750



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