



COURSE AGENDA

REPAIR BASICS FOR BACKFLOW ASSEMBLIES

Objective:

This course is intended to provide all water system personnel and certified backflow prevention assembly testers with the skills and knowledge to confidently diagnose various failures and perform repairs on the various types, sizes and manufacturer models of backflow prevention assemblies within their distribution and wastewater systems. Others that would benefit from this class are: backflow assembly testers, maintenance personnel, landscape contractors, fire system installers and plumbers. The pre-requisite for this course is current state certification or prior experience as a backflow assembly tester.

Text Manuals and Materials:

- “Practically Simple or Simply Practical Field Manual for the Repair of Backflow Prevention Assemblies” by Ludie MacGregor, BMI.
- Chapter 6, Uniform Plumbing Code, International Association of Plumbing and Mechanical Officials, as currently adopted in Oregon.
- Cross Connection Control Manual, 10th Edition, University of Southern California, Foundation for Cross Connection Control and Hydraulic Research.
- Manufacturer’s specification materials.
- Informational handouts and contact information page.

Agenda:

1. Discussion and review on who is qualified to repair backflow prevention assemblies under current regulations in Oregon.
2. Presentation on how to contact fire alarm personnel to schedule assembly testing, how to avoid activating the system and how to correctly return an assembly to service that is protecting a fire suppression system.
3. Review and demonstration of test gauge functions and how to interpret gauge readings that indicate potential repair or failure conditions that are present in the assembly.
4. Discussion and hands-on practice of all the commonly available and approved manufacturer’s models of backflow prevention assemblies and how to access their internal parts for flushing, cleaning and replacement of check valves, springs, seats, rubber components and diaphragms. Further discussion of issues related to accessing and repairing older assemblies. Discussion and safety precautions used when accessing non-contained spring assemblies. Using manufacturer literature to confirm proper repairs.
5. Presentation on hand tools and accessories that will make your life easier in the field.
6. Discussion on efficient and effective ordering of parts and repair kits.

“BMI is dedicated to the pursuit of clean, safe drinking water through education”



REPAIR BASICS FOR BACKFLOW ASSEMBLIES COURSE TIMELINE

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|---------------|-----------------------------------------------------------------|
| 8:00 – 8:15 | Introductions, overview of class |
| 8:15 – 9:00 | State of the industry Who can repair? |
| 9:00 – 10:00 | The do's and don'ts of repair |
| 10: 00- 10:15 | Break |
| 10:15 – 12:00 | What is your gauge telling you? Troubleshooting |
| 12:00 – 1:00 | Lunch |
| 1:00 – 3:00 | Did I return it to specifications? |
| 3:00 – 3:15 | Break |
| 3:15 – 5:00 | “Hands On” demonstrations Repairing various makes and models |