



STEAM BOILER CHEMISTRY

ON-SITE

3.5 HOURS LIVE CLASSROOM

1 DAY OPEN CLASSROOM

TRAINING OVERVIEW

This City & Guilds accredited course will provide you with knowledge and information to help you manage and treat boiler systems effectively.

Delivering training to your staff on the same equipment they will be working with is a great way to learn; whether it's for your shell boiler, coil boiler, or water tube boilers, we have tailored courses to suit you and your team.

This course available to suit both first-time users and the experienced hand looking to keep their knowledge up to date.

Our boiler courses cover everything in detail, with course timings and session duration to match your requirements along with being delivered by a respected expert in the field.

We will discuss at length the basic mechanism underpinning the creation of energy in boilers (combustion) which is the regulated chemical collaboration between fuel and oxygen. This delicate dance of fuel, air, and ignition produces heat energy, which influences the development of steam and is governed by some fundamental chemical laws- which play a fundamental part of the boiler cycle.

COURSE AIMS

The fundamental aim of the course is to enable the steam boiler and steam plant to be operated safely, efficiently & economically. Everyday operation/routines, testing and maintenance of boilers, burners and combustion, alarms, etc.

Health and Safety issues surrounding the boiler house and steam system including

HXT-W15

SOLIHULL

LIVE VIRTUAL

SHEFFIELD

HEMEL HEMPSTEAD

BOOK ONLINE TODAY

Or speak to a member of our sales team



sample coolers, water treatment, chemicals and testing of boiler water. Practical examples will be showcased on this courses and you will gain an understanding of the boiler reports in more detail along with the relevant regulations and guidance notes.

DURATION

1-day course classroom based commencing at 10:00 hours, ending at no later than 16:30 hours, with a 60-minute lunch break. 3.5 hours live virtual classroom commencing at either 9:30-13:00 or 13:00-16:30.

LEARNING OUTCOMES

Develop or reinforce knowledge of:

1. Identify your boiler type - fire or water type ?
2. Interpret the boiler results and understand the implications
3. Understand all the boiler fittings on their boiler and what they are used for?
4. Know the daily and weekly tests recommended and why they are carried out?
5. Understand the different elements of feedwater treatment and storage, and the recommendations and what happens if a site gets it wrong.

Training Content to be covered (The learner will)	Assessment Criteria (The learner can)
1. Basic understanding of energy	<ul style="list-style-type: none"> Improving the performance of a boiler and its associated steam distribution system decreases running costs and improves site operations.
2. The importance of atmospheric gases	<ul style="list-style-type: none"> The issues with the natural environment with regard to boiler efficiency
3. Steam is produced in two types of boiler	<ul style="list-style-type: none"> The basic concept of differing boiler design
4. Steam distribution efficiency	<ul style="list-style-type: none"> Heat recovery - There are a number of ways to recover heat which we will explore in detail
5. Boiler feed Water de-aeration	<ul style="list-style-type: none"> A number of principles apply to the mechanical deaeration of feedwater which we will discuss at length
6. Feed tank Design	<ul style="list-style-type: none"> The importance of the boiler feed tank
7. Boiler Corrosion	<ul style="list-style-type: none"> Corrosion can be defined as the destruction of a metal by chemical or electrochemical reaction with its environment- we explore this many faceted topic at length



8. Control of corrosion	<ul style="list-style-type: none">• The various approaches at our disposal to aid in controlling damaging corrosion
9. Corrosion Inhibitors	<ul style="list-style-type: none">• We discuss the chemistry surrounding these chemicals
10. Boiler chemistry	<ul style="list-style-type: none">• Discussed at length – what are my options ?
11. British Standards	<ul style="list-style-type: none">• There are currently three steam boiler water treatment standards which we discuss
12. Boiler Deposition	<ul style="list-style-type: none">• The issues surrounding high deposition

WHAT CERTIFICATION WILL YOU ACHIEVE?

On successful completion of this 1 day City & Guilds Accredited training course, delegates will receive an electronic copy of their certificate for Steam Boiler Chemistry. This certificate should be refreshed every two years.

HOW IS THIS COURSE DELIVERED?

Learning will come in a classroom environment in the form of trainer explanation, group discussions, videos, practical classroom exercises and will be broken up with breakout sessions.


DO YOU NEED TO BRING ANYTHING WITH YOU?

- Photographic ID
- The course trainer will provide everything else for the course



RELATED COURSES

Delegates undertaking this course may also be interested in the following City & Guilds accredited training courses:



HXT-W01

ON-SITE LIVE WEB-CONFERENCE
OPEN CLASSROOM


LEGIONELLA AWARENESS
1 Day (Open Classroom)
3.5 Hours (Live Web-Conference)



HXT-W02

ON-SITE LIVE WEB-CONFERENCE
OPEN CLASSROOM

LEGIONELLA RESPONSIBLE PERSON
1 Day (Open Classroom)
3.5 Hours (Live Web-Conference - pre add-on for W03)



HXT-W05

ON-SITE LIVE WEB-CONFERENCE
OPEN CLASSROOM


MANAGEMENT OF WATER SYSTEMS IN HEALTHCARE ESTATES HTM
2 Days (Open Classroom)
6 Hours (Live Web-Conference)



HXT-W12

ON-SITE LIVE WEB-CONFERENCE
OPEN CLASSROOM


DISINFECTION OF DOMESTIC SYSTEMS
1 Day (Open Classroom)
3 Hours (Live Web-Conference)



HXT-W24

OPEN CLASSROOM

TMV SERVICE, COMMISSIONING & MAINTENANCE PRACTICAL
1 Day (Open Classroom)



HXT-APW

ON-SITE

AUTHORISED PERSON WATER
5 Days (Open Classroom)