

## FCP Warewashing Module: Topics, Learning Outcomes, Benefits and Delivery Methods

### Section 1 – Scope and Application

Scope	Learning outcome	Benefits	Slides	Delivery method
<b>Key professional food service warewashing equipment, their applications and selection criteria.</b>	Understand the various key professional food service warewashing products, including their specifications, intended applications, and selection criteria, such as appropriate sizing, durability, energy efficiency and features.	Participants will be equipped with the foundations to make sustainable and energy-efficient choices, alongside the broad pressures applying to the selection and application of warewashing equipment, as well as gain context for the rest of the course.	4-17	Section 1. Recorded slides to watch at delegates own pace

### Section 2 – How it Works

Scope	Learning outcome	Benefits	Slides	Delivery method
<b>Key principles and processes of warewashing</b>	Understand the essential principles of sanitation and cleaning	Participants will understand how commercial warewashing equipment works in order to design, apply, use and maintain equipment effectively, thereby keeping its energy consumption and emissions to a minimum.	5-26	Section 2. Recorded slides to watch at delegates own pace
<b>Key components in warewashing systems</b>	Identify and describe the functions of the major components in warewashing equipment.	Participants will be able to discuss the importance of each component in maintaining the efficiency and performance of the system, while reducing carbon emissions.	9-19	
<b>Understanding warewashing chemicals</b>	Recognise the components of warewashing chemicals	Understanding of the component's actions taking place during sanitation will provide context for the environmental footprint of these chemicals	21-23	

### Section 3: Legislation and Regulation

Scope	Learning outcome	Benefits	Slides	Delivery method
<b>The energy technology list, energy measurement and labelling for warewashing equipment</b>	Understand how the energy and water consumption of warewashing equipment are measured and disclosed.	Gain a comprehensive understanding of energy consumption metrics to make informed equipment purchasing decisions and identify opportunities for cost reduction on behalf of customers.	5-6	Section 3. Recorded slides to watch at delegates own pace
<b>Water regulations compliance</b>	Understand various water regulations such as the water supply regulations 1999 and legionella control, and the practical actions that need to be taken to comply.	Acquire knowledge of critical compliance measures to avoid legal penalties.	8-11	
<b>Understanding electrical regulations for warewashing equipment</b>	Understand the electricity at work regulations, electromagnetic compatibility regulations and designated standards for low voltage appliances.	Develop the expertise to accurately interpret and utilise electrical regulation, enabling informed decision-making and improved compliance.	13-15	
<b>Other environmental legislation affecting warewashing equipment</b>	Understand other broad environmental regulation such as grease management, RoHS, SCIP, UKREACH, COSHH and other sustainability reporting requirements	Enhance your ability to navigate complex regulatory landscapes, ensuring comprehensive compliance and supporting your company's commitment to sustainability and corporate social responsibility. Provide authoritative advice to clients, partners and colleagues about the broad regulatory landscape of energy and carbon related regulations for warewashing equipment.	17-22	

## Section 4: Lifetime Emissions

Scope	Learning outcome	Benefits	Slides	Delivery method
<p style="text-align: center;"><b>Lifetime emissions of foodservice warewashing equipment</b></p>	<p>Gain comprehensive knowledge of the total carbon emissions associated with foodservice warewashing equipment throughout its entire lifecycle, from production to disposal.</p> <p>Appreciate the emissions from foodservice warewashing equipment in the context of the UK's total carbon emissions.</p>	<p>Equip yourself with the knowledge to identify and select warewashing systems with lower lifetime carbon, enabling you to make environmentally responsible design and/or purchasing decisions that enhance your organisation's sustainability credentials and potentially reduce long-term costs.</p>	<p style="text-align: center;">4-9</p>	<p style="text-align: center;">Section 4a. Recorded slides to watch at delegates own pace</p>
<p style="text-align: center;"><b>Embodied carbon of warewashing equipment</b></p>	<p>Develop an understanding of reducing the carbon footprint embedded in the materials and manufacturing processes of warewashing equipment.</p>	<p>With appreciation of the carbon emissions within the supply chain, from raw material extraction, processing, assembly, packaging and transport, you can better implement sustainable practices in manufacturing, to reduce the embodied emissions in your products.</p>	<p style="text-align: center;">10-11</p>	
<p style="text-align: center;"><b>Transport and distribution</b></p>	<p>Understand the environmental impact of transportation and distribution processes relating and identify methods to reduce associated carbon emissions.</p>	<p>Acquire the knowledge to optimise transportation and distribution processes for warewashing equipment, enabling your organisation to lower its logistics related carbon footprint, improve operational efficiency, and enhance its reputation for sustainability.</p>	<p style="text-align: center;">13-14</p>	
<p style="text-align: center;"><b>Design for low carbon</b></p>	<p>Learn how to evaluate and implement design strategies that minimise the carbon</p>	<p>Grasping the principles and available options relating to selection, design and installation of warewashing</p>	<p style="text-align: center;">16-19</p>	

	footprint of warewashing equipment, emphasising sustainable and efficient technologies.	equipment and linking them to reducing carbon emissions can develop solutions that assist the end user in minimising energy use, costs and emissions.		
<b>Reduction of energy and carbon in the use of warewashing equipment</b>	Understand the importance of best practice to include the correct use of pre-rinsing, sensors, controls, water and chemicals etc.	Take practical actions to ensure the warewashing equipment is used appropriately for energy and emissions reduction, and guard against incorrect use affecting the associated carbon emissions of a product.	21-25	
<b>The importance of staff training</b>	Recognise the importance of training operators in the efficient use and maintenance of warewashing equipment, to ensure optimal performance and energy savings.	Understand the influence of operator and technician behaviours and utilise training in the reduction of energy and carbon from warewashing equipment.	26	
<b>The environmental impact of warewashing chemicals</b>	Explore the relationship between warewashing chemicals and the environment, alongside a focus on reducing chemical environmental footprints.	Develop strategies to minimise the environmental impact of warewashing chemicals, contributing to overall sustainability goals.	28-30	
<b>Appropriate maintenance of warewashing equipment</b>	Understand the carbon footprint associated with maintenance activities and how these reduce the in-use and end of life emissions, and raise the asset value of warewashing equipment.	Appreciation of the carbon footprint of maintenance activities such as travel to site, reactive versus planned activities and the embodied footprint of sundry items will help you to balance these factors to optimise logistics planning and reduce overall emissions throughout the product's lifetime.	4-5	Section 4b. Recorded slides to watch at delegates own pace

<p><b>Innovation and development in warewashing technology</b></p>	<p>Explore the latest innovations and developments in warewashing technology, and understand how these advancements can be integrated into current systems to improve efficiency and sustainability.</p>	<p>Delegates will stay ahead of industry trends, enabling them to implement cutting-edge technologies that enhance energy efficiency, reduce operational costs, and position their business as a leader in sustainable practices.</p>	<p>7-12</p>	
<p><b>Lifecycle costs</b></p>	<p>Analyse the principles of lifecycle costing for warewashing systems, including the assessment of initial purchase costs, operating expenses, maintenance costs, and end-of-life disposal costs to determine the total cost of ownership.</p>	<p>Delegates will be equipped with the skills to make informed purchasing decisions and/or recommendations by evaluating the true cost of warewashing systems over their entire lifespan, leading to more cost-effective investments, improved budgeting, and enhanced financial planning, while also identifying opportunities for cost savings and efficiency improvements.</p>	<p>14-15</p>	
<p><b>End of (first) life of warewashing equipment</b></p>	<p>Understand end-of-life treatment and the waste hierarchy with respect to warewashing equipment, focusing on responsible disposal, recycling, and recovery of materials to minimise environmental impact.</p>	<p>Delegates will gain the knowledge to implement effective end-of-life management strategies, ensuring compliance with environmental regulations, reducing waste, and maximising the recovery of valuable materials, ultimately enhancing their company's sustainability profile, and reducing long-term disposal costs.</p>	<p>16-17</p>	
<p><b>Case studies of whole lifetime emissions</b></p>	<p>Examine case studies that illustrate the whole lifecycle carbon emissions of warewashing systems, from raw material extraction through to end-of-life disposal.</p>	<p>Delegates will gain practical insights into how theoretical concepts apply in real-world applications and impacts, enabling them to better evaluate and implement effective strategies for reducing carbon emissions in their own projects and operations. This knowledge can lead to the provision of more authoritative advice to channel partners.</p>	<p>19-20</p>	