Changing lives through learning

Qualification Unit

This unit forms part of a regulated qualification.

Unit Title: Optical Fibre and Cable Blowing

Unit Reference Number: F/618/8306

Level: Three (3)

Credit Value: Five (5)

Minimum Guided Learning Hours: 30

Learning Outcome (The Learner will):	Assessment Criterion (The Learner can):
1. Understand the principles, advantages and limitations of fibre duct, subduct and blown fibre installation	1.1 List typical sizes and specifications of duct, subduct and microduct
	1.2 List typical sizes, specification and construction of blown fibre cables
	1.3 Critically compare the different options for duct, subduct and blown fibre cabling for different types of network installation
2. Understand the options and techniques for installing duct for a fibre network	2.1 Compare the advantages and limitations of duct installation.
	2.2 Carry out duct bundle jointing, branching, midspan access and split duct repair.
	2.3 Explain the importance of gas sealing
	2.4 Choose appropriate tools and techniques to complete gas seals
	2.5 Explain common duct system quality issues
	2.6 Explain how to ensure a high quality of finish with ducting
3. Understand the principles of working safely with fibre and cable blowing equipment	3.1 Identify the main environmental, chemical and electrical hazards related to fibre and cable blowing equipment
	3.2 Explain safe working practices to minimise the hazards

	3.3	Explain when Personal Protective Equipment (PPE) should be used
4. Know how to plan a route and select, set up and use the appropriate blowing equipment	4.1	Explain the functions of the blowing equipment components
	4.2	Explain how the different components of blowing equipment work together.
	4.3	Explain the usage limitations of different types of blowing equipment
	4.4	Plan a suitable route for a fibre link, ensuring the appropriate duct and blowing equipment for the distances
	4.5	Plan appropriate locations for building entries, blowing access chambers
5. Be able to install blown fibre	5.1	Set up equipment for blown fibre installations
	5.2	Test fibre blowing equipment for blown fibre installations
	5.3	Carry out blown fibre installations following the standard procedure for the task
	5.4	Select the most suitable tube joints and seals for the tasks in hand
	5.5	Follow correct procedures when completing tube joints and seals
6. Be able to install blown microduct and fibre cable	6.1	Set up microduct and cable blowing equipment for blown microduct and blown fibre installations
	6.2	Test microduct or cable blowing equipment for a blown microduct and cable installations
	6.3	Select most suitable duct lubrication for the installations
	6.4	Select correct cable/duct drum supports for the installations
	6.5	Carry out a blown microduct and fibre cable installations
	6.6	Select most suitable duct joints, water and gas seals
	6.7	Follow correct procedures when completing: • Duct joints • Water seals • Gas seals

7.	Understand the requirement for documentation and labelling	7.1 Explain how to label: • Fibre • Bundles • Cables • Microduct • Duct correctly according to network specifications
		7.2 Explain how to document an installed route using standard line diagrams

Required Equipment List

In order to deliver this unit, centres must have the following equipment for every **six** (6) trainees on the course:
Duct and duct connectors
Fibre and cable samples
Set of hand tools and accessories
Duct system for blowing into
Suitable blowing equipment for the duct system
Suitable fibre cable for the duct system