

WHAT SKILLS DO PIPEFITTERS NEED?

Engineering construction projects involve the installation of kilometres of pipework, which carry oil, gas, water and other process fluids. Pipefitters normally work with welders to connect piping efficiently and safely.

ECITB HAVE TWO OPTIONS AVAILABLE TO TRAIN PIPEFITTER LEARNERS –

Option 1 Off-the-job training in an approved training centre using Off-the-Job Training Units and then returning to site for work experience using the On-the-Job Performance Units.

Option 2 You deliver on-the-job training at your site using On-the-Job Training Units and On-the-Job Performance Units to gain work experience.

OFF-THE-JOB TRAINING UNITS

| | |
|-------------|--|
| CO1 | Contribute to effective working relationships |
| CO2 | Work safely, minimize and comply with emergency procedures |
| CO3 | Identify and deal with hazards in the work environment |
| IPS Pipe 1 | Shape pipework components by material removal using hand tools |
| IPS Pipe 2 | Assemble pipework components to meet specification |
| IPS Pipe 3 | Position and install pipework |
| IPS Pipe 4 | Mark out to the required specification |
| IPS Pipe 5 | Establish compliance of an engineering installation with the specification |
| IPS Pipe 6 | Prepare work areas for the installation of pipework |
| IPS Pipe 7 | Prepare materials required for pipework installation |
| IPS Pipe 8 | Prepare equipment for pipework installation |
| IPS Pipe 9 | Reinstate the work area after completing the installation of pipework |
| IPS Pipe 10 | Store pipework installation related resources for further use |
| IPS Pipe 11 | Test the performance and condition on installed pipework |
| IPS Pipe 12 | Shape pipework components by manually applied pressure |

ECITB recommend that a new Pipefitter learner in the Off-the-Job Training Centre undertake all Off-the-Job Training Units.

ON-THE-JOB TRAINING AND PERFORMANCE UNITS

| | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| PF001 | PF002 | PF003 | PF004 | PF005 | PF006 | PF010 | PF011 | PF012 | PF013 |
| PF014 | PF015 | PF016 | PF018 | PF019 | PF030 | PF031 | PF032 | PF033 | |

The On-the-Job Units are shown overleaf mapped against the N/SVQ Units to outline which On-the-Job Units can contribute to the achievement of the Pipefitter N/SVQ Level 3.

FUNDING DETAILS (ECITB financial assistance to levy paying companies)

The following grants are available for learners who have not yet attained craft status (N/SVQ level 3):

| | |
|------------------------|--------|
| N/SVQ completion grant | £1,000 |
|------------------------|--------|

EXISTING CRAFTSPERSONS

Any of the On-the-Job Performance units may be used for skill enhancement of existing craftspersons. Under such circumstances a grant of £200 per unit will be paid for up to any 5 satisfactorily completed units.

ON-THE-JOB PERFORMANCE UNITS PF UNIT TO IPS PIPE N/SVQ UNIT MAPPING TO SHOW WHICH PF UNITS CAN CONTRIBUTE EVIDENCE TO SUPPORT THE N/SVQ IN PIPEFITTING

| N/SVQ IPS PIPE UNIT TECSkills On-the-Job Unit | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | MPS MECH 10 |
|--|--|-----|----|---|-----|---|---|---|---|----|----|-----|----------------|
| | PF001 Setting Out Pipework and Marking Out | | | | ✓✓✓ | | ✓ | | ✓ | ✓ | | | |
| PF002 Developing Patterns for Pipework | | | | ✓ | | ✓ | | ✓ | ✓ | | | | |
| PF003 Preparing Pipe Ends using Portable Edge Preparation Machines | ✓ | | | ✓ | | ✓ | ✓ | ✓ | ✓ | | | | |
| PF004 Pipe Bending | | | | ✓ | | ✓ | ✓ | ✓ | ✓ | | | ✓✓✓ | |
| PF005 Fabricating Pipework Branches and Bends | | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | | | | |
| PF006 Cold Bending Ferrous and Non-ferrous Pipe | | | | ✓ | | ✓ | ✓ | ✓ | ✓ | | | ✓✓ | |
| PF010 Jointing Pipework using Flanged Joints | | ✓ | | | | ✓ | ✓ | ✓ | ✓ | | | | |
| PF011 Preparing and Assembling Screwed Pipework | | ✓ | | | | ✓ | ✓ | ✓ | ✓ | | | | |
| PF012 Preparing and Assembling Small Bore Non-Ferrous Pipework | | ✓ | | | | ✓ | ✓ | ✓ | ✓ | | | | |
| PF013 Preparing and Assembling Welded Pipework | | ✓✓✓ | | | | ✓ | ✓ | ✓ | ✓ | | | | |
| PF014 Preparing and Assembling Non-metallic Pipework | | ✓✓✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | | | ✓ | |
| PF015 Assembling and Tightening Bolted Flanged Connections | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓✓ |
| PF016 Preparing and Bonding GRP Pipework | ✓ | ✓✓✓ | | | | ✓ | ✓ | ✓ | ✓ | ✓ | | | |
| PF018 Assembling and Tensioning Bolted Connections | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ |
| PF019 Assembling and Tightening Bolted Connections | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ |
| PF030 Fabricating and Installing Pipework Supports | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | | | |
| PF031 Installing Pipework Systems | | ✓✓ | ✓ | | | ✓ | ✓ | ✓ | ✓ | | | | |
| PF032 Installing Steam Tracing and Jacketed Pipes | | ✓✓ | ✓✓ | | | ✓ | ✓ | ✓ | ✓ | | | | |
| PF033 Preparing and Testing Pipework Systems | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓✓ | | |

When there are multiple ticks in a box this indicates that the On-the-Job Unit has different Elements that meet the N/SVQ Unit requirement.

Common Units CO1, CO2 and CO3 only have Off-the-Job Units, which are mandatory units for the N/SVQ Pipefitting Level 3.

NVQ Level 3 Requirement is made up of 10 NVQ Units (5 Mandatory Units and 5 Technical Option Units)

Mandatory Units CO 1, 2, 3, IPS Pipe 1 & 2.

Technical Option Units Either IPS Pipe 3 or IPS Pipe 11 PLUS any FOUR other units (this can include IPS 3 or IPS 11 if not already selected).