



Level 1 NVQ Certificate in

# Performing Engineering Operations

# ENGINEERING

## Qualification Specification

### Overview

This qualification covers the fundamental skills and knowledge common to all engineering practices, including health and safety requirements and communicating engineering information. It offers an extensive choice and flexibility for learners to demonstrate competence in one or more of a broad variety of engineering activities.

### Typical Job

The qualification is applicable to a wide variety of engineering occupations within the sector, dependent on the pathway chosen.

Qualification code:	600/8229/X
Level:	1
Total qualification time:	220 Hours
Guided learning hours:	160 (min) 203 (max)
Credits:	22
Minimum age	Pre-16, 16+

Issue 1.0

## Purpose of the qualification

This qualification enables learners to acquire engineering competencies in a realistic, sheltered and controlled environment such as that offered by schools, colleges, training providers, company training centers, HM Prison Services and the MOD training workshops. This will then enable a safe progression into the workplace/employment. It is also for individuals employed in engineering but require additional engineering competencies as part of an existing job role or to enable career progression.

## What could this qualification lead to?

This qualification provides an excellent base for progression to a range of engineering qualifications and also into employment and an apprenticeship.

## Entry Requirements

Learners must have the potential to achieve the assessment criteria set out in the units.

## How is the qualification achieved?

The learner must present evidence (portfolio) which clearly shows they have met the assessment criteria and learning outcomes. The learner must achieve the mandatory and optional units relevant to their pathway (occupational role).

## What will be assessed?

All evidence submitted by the learner against the assessment criteria.

## How will it be assessed?

The qualification is assessed by:

- holistic assessment
- portfolio of evidence (could be electronic)
- verbal questioning
- witness testimony
- knowledge and understanding.

The PEO assessment routes are intended to have a wide application throughout the engineering sector. It is necessary therefore to have a flexible approach to the environment in which the assessment routes are delivered and assessed.

PEO can be delivered in the workplace (in a sheltered environment) or at a Centre through workshop activities etc. There is no exam. PEO is also the foundation into other engineering qualifications and gives learners an insight to engineering.

## Structure

This qualification consists of 5 units in total (3 Mandatory plus 2 Optional).

**Mandatory assessment routes: All three assessment routes must be completed**

EAL code	Assessment route title	Level	Credit value	Guided learning hours	Ofqual code
QPE02/001N	Working Safely in an Engineering Environment	1	5	33	L/600/5781
QPE01/002N	Carrying out engineering activities efficiently and effectively	1	3	22	A/504/6350
QPE01/003N	Using and Communicating Technical Information	1	3	22	J/504/6352

**Optional assessment routes: Any two assessment routes from the following:**

QPE01/004N	Making Components using Hand Tools and Fitting Techniques	1	10	63	Y/504/6355
QPE01/005N	Assembling Mechanical Components	1	10	63	D/504/6356
QPE01/006N	Carrying Out Pipe Fitting Activities	1	10	63	H/504/6357
QPE01/007N	Using Lathes for Turning Operations	1	10	63	K/504/6358
QPE01/008N	Using Milling Machines	1	10	63	M/504/6359
QPE01/009N	Using Grinding Machines	1	10	63	H/504/6360
QPE01/010N	Carrying Out Routine Servicing of Mechanical Equipment	1	10	63	K/504/6361
QPE01/011N	Assembling Fluid Power Equipment	1	10	63	M/504/6362
QPE01/012N	Carrying Out Sheet Metal Cutting, Forming and Assembly Activities	1	10	63	T/504/6363
QPE01/013N	Cutting and Shaping Platework Components	1	10	63	A/504/6364
QPE01/014N	Using Oxy-Fuel Gas Cutting Equipment	1	10	63	F/504/6365
QPE01/015N	Using Manual Metal Arc Welding Equipment	1	10	63	J/504/6366
QPE01/016N	Using Manual TIG Welding Equipment	1	10	63	R/504/6368
QPE01/017N	Using Semi-automatic MIG or MAG Welding Equipment	1	10	63	Y/504/6369
QPE01/018N	Using Manual Oxy-Fuel Gas Welding Equipment	1	10	63	R/504/6371
QPE01/019N	Using Manual Flame Brazing and Soldering Equipment	1	9	59	D/504/6373
QPE01/020N	Wiring Electrical Equipment and Circuits	1	10	63	H/504/6374
QPE01/021N	Assembling Electrical Wiring Support Systems	1	10	63	M/504/6376
QPE01/022N	Assembling and Wiring Electrical Panels	1	10	63	A/504/6378
QPE01/023N	Assembling Electronic Circuits	1	10	63	T/504/6380



QPE01/024N	Carrying Out Routine Servicing on Electrical/Electronic Equipment	1	10	63	A/504/6381
QPE01/025N	Making Components from Wood-Based Materials	1	10	63	J/504/6383

QPE01/026N	Assembling Engineering Woodwork Components	1	9	59	R/504/6385
QPE01/027N	Carrying Out Composite Moulding Activities	1	10	63	Y/504/6386
QPE01/028N	Assembling Composite Components	1	9	59	H/504/6388
QPE01/029N	Preparing Sand for Moulding and Coremaking	1	5	38	K/504/6389
QPE01/030N	Making Sand Moulds and Cores for Casting	1	10	63	H/504/6391
QPE01/031N	Manually Casting Components	1	9	59	M/504/6393
QPE01/032N	Fettling Cast Components	1	6	45	A/504/6395
QPE01/033N	Applying Coatings or Coverings to Finish Surfaces	1	7	49	F/504/6396
QPE01/034N	Applying Surface Treatments	1	7	49	L/504/6398
QPE01/035N	Applying Heat Treatment to Engineering Materials	1	7	49	R/504/6399
QPE01/036N	Hand Forging Engineering Materials	1	7	49	A/504/6400

