

## 4a. T Level in Engineering, Manufacturing, Processing and Control

### **The Progression Profile**

This T Level has four occupational specialisms: MPC Production – Machining and Toolmaking; MPC Production – Fitting and Assembly; Composites Manufacturing; and Fabrications and Welding Technologies.

For these occupational specialisms, there are progression pathways into apprenticeships, education and work.

The T Level is based on an occupational standard. The occupational standard will have an apprenticeship option, which is referred to in the profile as the 'relevant apprenticeship'.

For some apprenticeships, in particular the relevant apprenticeship, a learner may have covered the content to a high level. They will not need to complete the apprenticeship in this step, this is noted as 'not applicable'. An apprenticeship may also be shortened due to recognised prior learning (RPL), this is noted as accelerated. Links to the mapping have been included which detail the areas in need of further development before full competence is reached in that occupation.

For work, whilst some roles may be accessed after completing the T Level, others are available after further training and gaining more experience.

Please see below, the progression options for each occupational specialism.

### **1. MPC Production - Machining and Toolmaking Occupational Specialism**

For apprenticeships at level 3, the relevant apprenticeship is [Machining Technician](#)

At level 4, there is the [Process Leader](#) and [Engineering Manufacturing Technician](#) apprenticeships.

At level 5, there is the [Aerospace Engineer](#) apprenticeship.

Other progression options may include mechanical production or manager/supervisor.

For **education**, degree options may include Manufacturing Engineering; and Electrical and Electronic Engineering.

For **work**, career progression could include Engineering Technician, Aerospace Technician, Aviation Engineer, Maritime Engineering, Machinist, Engineer and Toolmaker.

## **2. MPC Production – Fitting and Assembly Occupational Specialism**

For **apprenticeships** at level 3, the relevant apprenticeships, [Engineering Fitter \(accelerated\)](#) and the [Engineering Technician \(accelerated\)](#) apprenticeships, are being revised. Further information will be added once the revisions are finalised. Other level 3 apprenticeships include [Maintenance & Operations Engineering Technician](#), [Survival Equipment Fitter \(Military\)](#) (being revised), [Heritage Engineering Technician](#), [Marine Engineer](#), [Food and Drink Maintenance Engineer](#) (being revised).

At level 4, there is the [Electrical Power Networks Engineer](#), [Electrical Power Protection & Plant Commissioning Engineer](#), and [Engineering Manufacturing Technician](#) apprenticeships.

At level 5, there is the [Food and Drink Engineer](#) apprenticeship.

At level 6, there is the [Food and Drink Advanced Engineer](#) apprenticeship.

For **education**, degree options may include Manufacturing Engineering; and Electrical and Electronic Engineering.

For **work**, career progression could include Engineering Technician, Engineering Fitter, Food and Drink Engineer, Costing Engineer, Installation Engineer, Quality Engineer, Process Engineer and EEPC Engineer.

## **3. Composites Manufacturing Occupational Specialism**

For **apprenticeships** at level 3, the relevant apprenticeships are [Boatbuilder \(accelerated\)](#) and [Composites Technician \(accelerated\)](#). Other level 3

apprenticeships include [Motor Vehicle Service & Maintenance Technician \(Light Vehicle\)](#).

At level 4, there is the [Process Leader](#), [Space Engineering Technician](#), [Automation and Controls Engineering Technician](#) and [Rail Engineering Advanced Technician](#) apprenticeships.

At level 6, there is the [Control Technical Support Engineer](#) (being revised), [Manufacturing Engineer](#) and [Manufacturing Manager](#) apprenticeships.

For **education**, degree options may include Manufacturing Engineering; and Electrical and Electronic Engineering.

For **work**, career progression could include Senior Technician, Composites Technician, Production Engineer, Rail Engineering Technician, Recycling Operative, Automation and Controls Engineering Tech and Space Engineering Tech.

#### **4. Fabrications and Welding Technologies Occupational Specialism**

For **apprenticeships** at level 3, the relevant apprenticeships include the [Metal Fabricator \(accelerated\)](#), [Pipe Welder \(accelerated\)](#), [Plate Welder \(accelerated\)](#). The [Non-Destructive Testing](#) apprenticeship is being revised. Further information will be added once the revisions are finalised.

At level 4, there is the [Asset Manager](#) and [Nuclear Welding Inspection Technician](#) apprenticeships.

At level 5, there is the [Metal Recycling Technical Manager](#) apprenticeship.

At level 6, there are the potential Fabrication Technologist and Welding Technologist apprenticeships.

At level 7, there is the [Risk and Safety Management Professional](#) apprenticeship.

For **education**, degree options may include Manufacturing Engineering; and Electrical and Electronic Engineering.

For **work**, career progression could include Metal Fabricator, Class A Welder, Class B Welder, Coded Pipe Welder, Non-Destructive Operator, Coded Plate Welder and Asset Manager.

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(Accelerated) = May be shortened due to recognised prior learning (RPL)

Not applicable = The learner has covered the content to a high level and may bypass the apprenticeship in this step

**1. MPC Production - Machining and Toolmaking Occupational Specialism**

Relevant Apprenticeship:  
[Machining Technician](#)

**Apprenticeships**

**Level 3**  
[Advanced Furniture CNC Technician](#)  
[Marine Engineer](#)  
[Engineering Technician \(Accelerated\)](#)

**Level 4**  
[Process Leader](#)  
[Engineering Manufacturing Technician](#)

**Level 6**  
[Aerospace Engineer](#)

**Education**

**Degree options may include:**  
Manufacturing Engineering  
Electrical and Electronic Engineering

**Other progression options could include:**

- Mechanical Production
- Manager/Supervisor
- Design

**Work**

**Career progression could include:** Aviation Engineer      Engineer  
Engineering Technician      Maritime Engineering      Toolmaker  
Aerospace Technician      Machinist

**2. MPC Production – Fitting and Assembly Occupational Specialism**

Relevant Apprenticeship:  
[Engineering Fitter](#)  
[Engineering Technician](#)  
(Fitting Options):

- Aerospace Manufacturing Fitter
- Aerospace Manufacturing Electrical/Mechanical & Systems Fitter
- Maritime Electrical Fitter
- Maritime Mechanical Fitter

**Apprenticeships**

**Level 3**  
[Maintenance & Operations Engineering Technician](#)  
[Survival Equipment Fitter \(Military\) being revised](#)  
[Heritage Engineering Technician](#)  
[Marine Engineer](#)  
[Food and Drink Maintenance Engineer](#)  
[Engineering Technician \(Accelerated\)](#)  
[Engineering Fitter \(Accelerated\)](#)

**Level 4**  
[Electrical Power Networks Engineer](#)  
[Electrical Power Protection & Plant Commissioning Engineer](#)  
[Engineering Manufacturing Technician](#)

**Level 5**  
[Food and Drink Engineer](#)

**Level 6**  
[Food and Drink Advanced Engineer](#)

**Education**

**Degree options may include:**  
Manufacturing Engineering  
Electrical and Electronic Engineering

**Work**

**Career progression could include:** Engineering Technician      Costing Engineer      Quality Engineer      Food and drink Engineer  
Engineering Fitter      Installation Engineer      Process Engineer      EEPC Engineer

