

Apprenticeship Training Programme

Phase 1: With Employer

Induction Training
Introduction to Health & Safety
Introduction to Tools & Equipment
Introduction to Basic Skills

Phase 2: Delivered in Training Centre (20 weeks)

Course Content:
Induction
Sheet Metal Fundamentals
Geometry & Pattern Development
Thermal Processes
General Sheet Metalwork
Ductwork
Decorative Metalwork
Introduction to CNC (Computer Numerical Control) Sheet Metal Manufacturing

Phase 3: With Employer

Work Based Training and Assessments

Phase 4: Delivered in Educational Colleges (11 weeks)

Course Content:
Geometry & Pattern Development
Cladding
Precision Sheet Metalwork
Stainless Steel
General Sheet Metalwork
Metal Roof Work
Panel & Double Curvature Work
Thermal Processes
CNC Programming and Operating

Phase 5: With Employer

Work Based Training and Assessments

Phase 6: Delivered in Educational Colleges (10 weeks)

Course Content:
Geometry & Pattern Development
CAD/CAM (Computer Aided Design and Computer Aided Manufacturing)
IT (Information Technology)
Stainless Steel
General Sheet Metalwork
Metal Roof Work
Thermal Processes
Special Areas

Phase 7: With Employer

Work Based Training and Assessments

The overall duration of this apprenticeship is a minimum of 4 years provided all phases are successfully completed. On successful completion of the programme the learner is awarded a Level 6 Advanced Certificate Craft – Sheet Metalworking.

Ver 2

The Craft of Sheet Metalworking



For further information please contact your local Education & Training Board Training Centre or log onto www.SOLAS.ie



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 **Apprenticeship**
KNOWLEDGE | SKILLS | COMPETENCE

What is a Sheet Metal Worker?

Sheet metal workers work with thin metal sheets (up to 3mm thick) which they bend, cut and shape using hammers, small presses, roller machines and guillotines. Sheet metal workers work with sheet steel, galvanised steel, stainless steel, aluminium, copper, etc. and their work includes the cutting of these metals by using patterns or templates as guides, as well as shaping the metal by forming, bending, beating or rolling by means of manual and CNC (Computer Numerical Control) machinery.

Some sheet metal workers specialise in more complex techniques or in operating one or more of the machines.

Sheet metal workers are usually employed by firms manufacturing such articles as ventilation equipment, catering and food processing equipment, computer and data communications hardware and can also be involved in vehicle manufacture.

Sheet metal workers require many skills including:

- Working with a variety of specialised hand and power tools to cut and shape the metal and to drill or punch holes
- Knowledge of a range of piping systems
- Interpreting technical drawings and diagrams
- Understanding the scientific uses and properties of metals
- Using mathematics to solve technical or scientific problems
- Marking out and measuring
- Operating CNC equipment
- Hammering down (planish) excess surface weld metal

Personal Qualities and Skills

As a Sheet Metal Worker you will need to be physically active and to be able to work with your hands. An awareness of health and safety and good housekeeping is essential as well as attention to detail.

Aspects of work

- Learning and developing new practical craft-related skills, knowledge and competence
- Working with and learning from experienced Craftspersons
- Seeing a job through from start to finish
- Comply with Health and Safety requirements
- Using tools and operating machinery
- Being responsible for controlling or adjusting equipment
- Demonstrate good analytical and troubleshooting skills
- Understanding technical drawings and diagrams
- Being accurate with numbers in counting, measuring and arithmetic
- Being well organised and careful with practical tasks
- Keeping up to date with changing technologies
- Being physically active
- Taking responsibility for own learning, including the allocation of study time
- Working in a noisy environment
- Passing all your phase exams (theory, practicals skills demonstration)
- Earning as you learn

The Sheet Metal Worker must have the ability to:

- Plan and organise
- Communicate effectively
- Solve problems
- Work independently and as part of a team
- Show a positive attitude
- Recognise the need for good customer relations
- Demonstrate good work practices including time keeping, tidiness, responsibility, quality awareness and safety awareness

How to become an Apprentice

- You must obtain employment as an apprentice in your chosen occupation.
- The employer must be approved to train apprentices.
- The employer must register you as an apprentice within two weeks of recruitment.
- In certain crafts, apprenticeship applicants are required to pass a colour vision test approved by SOLAS.

Entry Requirements

The minimum age at which the employment of an apprentice may commence is 16 years of age.

The minimum educational requirements are:

1. Grade D in five subjects in the Department of Education & Skills Junior Certificate Examination or an approved equivalent,

or

2. The successful completion of an approved Pre-Apprenticeship course

or

3. Three years' work experience gained over sixteen years of age in a relevant designated industrial activity as SOLAS shall deem acceptable

It should be noted that these are the current approved **minimum educational requirements** for apprenticeship programmes, however, previous experience of the following subjects would be an advantage but not essential: Metalwork, Physics, Engineering, Technology, Mathematics and Technical Drawing/Graphics.

Opportunities on Qualification

On successful completion of the apprenticeship programme, apprentices are qualified to work within the recognised trade or profession.

Where craftspersons have the necessary ability and initiative, opportunities are available for advancement. These include advanced technology courses and management courses which are available in Institutes of Technology, Schools of Management and Professional Institutes.

Many craftspersons use their qualification as a platform to launch careers such as engineers, managers, owners of businesses and instructors amongst others.