

Apprenticeship Training Programme

Phase 1: With Employer

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

Phase 2: Delivered in Training Centre (20 weeks)

Induction
Sheetmetal and Insulation Fundamentals
Geometry and Pattern Development
Substructures, Advanced Coldwork and Cladding
Insulation—Materials, Science & Applications
Insulation and Cladding of Ductwork and Vessels
Insulation and Cladding of Training Rig

Phase 3: With Employer

Work Based Training and Assessments

Phase 4: Delivered in Educational Colleges (11 weeks)

Geometry and Pattern Development
Insulation Materials and Science & Application
Customised Fabrication and Fitting
Large Scale Projects

Phase 5: 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 - Industrial Insulation

The Craft of Industrial Insulation



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



What is an Industrial Insulator?

The Industrial Insulator's job involves measuring, cutting and fitting a variety of insulation materials to pipes, valves, pressure vessels, tanks, ducting, flues or on any hot or cold surfaces for the purpose of thermal insulation, fireproofing or soundproofing.

(It also involves) the cladding of the insulation material with suitable coverings such as sheet metal, aluminium, zinc, stainless steel or other specified coverings and finishes, such as, felt, cement, various rubbers, canvas and foils.

Metal cladding involves pattern layout and development of sheetmetal (mild steel, galvanised mild steel, stainless steel, aluminium and other alloys) up to 1.2mm and the use of various machines. These patterns would include pipe work, vessels, domed ends, valve and angle boxes, tee pieces, reducers, transformers etc. The patterns are then fabricated by hand and with the aid of machines.

Industrial Insulator's require many skills including:

- Working with a variety of specialised hand and power tools
- Operation of a wide range of machinery : Guillotine, folding machines, hand & electric swaging machines, hand & electric rolling machines, electric hand shears, hand drills, rotary shears and lock forming machines.
- Drawing Pattern Development
- Insulating pipe work, ductwork, valves, flanges and pressure vessels.
- Fabrication of all forms of cladding
- A wide range of assembly and finishing techniques - self-securing joints, riveting, fasteners, flanging, swaging and banding
- Knowledge of non-metallic finishing may be joined by adhesives, banding or strapping
- Performing a range of modern cutting processes
- Operation of CNC (Computer Numerical Control) machinery
- Planning, costing/estimating
- Quality and cost control
- Knowledge and application of energy conservation
- Knowledge and application of Health and Safety considerations

Aspects of work

- Learning and developing new practical craft-related skills, knowledge and competence
- Working with and learning from experienced Craftpersons
- 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 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

Personal Qualities and Skills

As an Industrial Insulator 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.

The Industrial Insulator 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 craftpersons 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 craftpersons use their qualification as a platform to launch careers such as engineers, managers, owners of businesses and instructors amongst others.