

Fabrication & Welding Engineering Level 2

NVQ: 100/3611/8

SVQ: G7E022

The candidate is required to complete the three mandatory assessment routes, plus the required number of assessment routes from their choice of pathway.

Mandatory Assessment Routes

EAL Assessment Route Code		QCA Code
FWE2/001	■ Complying with Statutory Regulations and Organisational Safety Requirements	D/102/3926
FWE2/002	■ Using and Interpreting Engineering Data and Documentation	H/102/3927
FWE2/003	■ Working Efficiently and Effectively in Engineering	K/102/3928



Pathway FWA: Manual Welding

Scheme Number/Pathway: NVQ: 100/3611/8FWA SVQ: G7E022FWA

All three mandatory assessment routes plus one assessment route from the choice below:

EAL Assessment Route Code		QCA Code
FWE2/004	■ Joining Materials by the Manual Metal Arc Welding Process	M/102/3929
FWE2/005	■ Joining Materials by Manual MIG/MAG and other Continuous Wire Welding Processes	H/102/3930
FWE2/006	■ Joining materials by Manual TIG and Plasma-arc Welding Processes	K/102/3931
FWE2/007	■ Joining Materials by the Manual Gas Welding Process	M/102/3932
FWE2/008	■ Producing Fillet Welded Joints using a Manual Welding Process	T/102/3933

Pathway FWB: Welding Machine Operating

Scheme Number/Pathway: NVQ: 100/3611/8FWB SVQ: G7E022FWB

All three mandatory assessment routes plus one assessment route from the choice below:

EAL Assessment Route Code		QCA Code
FWE2/009	■ Welding Materials with Mechanised Arc Welding Equipment	A/102/3934
FWE2/010	■ Welding Materials using Resistance Spot, Seam and Projection Welding Machines	F/102/3935
FWE2/011	■ Welding Materials using Laser Welding Machines	J/102/3936
FWE2/012	■ Welding Materials using Electron Beam Welding Machines	L/102/3937
FWE2/013	■ Welding Materials using Friction Welding Machines	R/102/3938

Pathway FWC: Rail Welding

Scheme Number/Pathway: NVQ: 100/3611/8FWC SVQ: G7E022FWC

All three mandatory assessment routes plus one assessment route from the choice below:

EAL Assessment Route Code		QCA Code
FWE2/014	■ Joining Rails using the Aluminothermic Welding Process	Y/102/3939
FWE2/015	■ Restore Rails to Operational Condition using an Arc Welding Process	L/102/3940
FWE2/016	■ Welding Rails using Flash Welding Equipment	R/102/3941

Pathway FWD: Brazing and/or Soldering

Scheme Number/Pathway: NVQ: 100/3611/8FWD SVQ: G7E022FWD

All three mandatory assessment routes plus one assessment route from the choice below:

EAL Assessment Route Code		QCA Code
FWE2/017	■ Joining Materials by Manual Torch Brazing and Soldering	Y/102/3942
FWE2/018	■ Joining Materials by Manual Torch Brazing Machines	D/102/3943

Pathway FWE: Plastic Welding

Scheme Number/Pathway: NVQ: 100/3611/8FWE SVQ: G7E022FWE

All three mandatory assessment routes plus one assessment route from the choice below:

EAL Assessment Route Code		QCA Code
FWE2/019	■ Joining Plastics using Manual Welding Processes	H/102/3944
FWE2/020	■ Joining Materials using Plastics Welding Machines	K/102/3945

Pathway FWF: Sheet Metalwork (3mm or less)

Scheme Number/Pathway: NVQ: 100/3611/8FWF SVQ: G7E011FWF

All three mandatory assessment routes plus two assessment routes from Group A, plus one assessment route from Group B:

Group A

EAL Assessment Route Code		QCA Code
FWE2/021	■ Marking Out Components for Fabrication	M/102/3946
FWE2/022	■ Cutting Sheet Metal to Shape using Hand and Machine Tools	T/102/3947
FWE2/023	■ Forming Sheet Metal using Hand and Machine tools	A/102/3948
FWE2/024	■ Producing Sheet Metal Assemblies	F/102/3949
FWE2/025	■ Heat Treating Materials for Fabrication Activities	T/102/3950
FWE2/026	■ Cutting and Shaping Materials using NC/CNC Laser Profiling Machines	A/102/3951
FWE2/027	■ Cutting and Shaping using NC/CNC Plasma or Gas Cutting Machines	F/102/3952

Plus one assessment route from Group B.

Group B

EAL Assessment Route Code		QCA Code
FWE2/005	■ Joining Materials by Manual MIG/MAG and other Continuous Wire Welding Processes	H/102/3930
FWE2/006	■ Joining materials by Manual TIG and Plasma-arc Welding Processes	K/102/3931
FWE2/007	■ Joining Materials by the Manual Gas Welding Process	M/102/3932
FWE2/028	■ Assembling Components using Mechanical Fasteners	J/102/3953
FWE2/029	■ Bonding Engineering Materials using Adhesives	L/102/3954
FWE2/030	■ Joining Materials by Resistance Spot Welding	R/102/3955
FWE2/031	■ Slings, Lifting and Moving Materials and Components	Y/102/3956

Pathway FWG: Plateworker (3mm upwards)

Scheme Number/Pathway: NVQ: 100/3611/8FWG SVQ: G7E022FWG

All three mandatory assessment routes plus the assessment route in Group A, plus one assessment route from Group B, plus one assessment route from Group C:

Group A

EAL Assessment Route Code		QCA Code
FWE2/021	■ Marking Out Components for Fabrication	M/102/3946

Plus one assessment route from Group B:

Group B

EAL Assessment Route Code		QCA Code
FWE2/026	■ Cutting and Shaping Materials using NC/CNC Laser Profiling Machines	A/102/3951
FWE2/027	■ Cutting and Shaping using NC/CNC Plasma or Gas Cutting Machines	F/102/3952
FWE2/032	■ Cutting Plate and Sections using Shearing Machines	D/102/3957
FWE2/033	■ Cutting Materials using Hand Operated Thermal Cutting Equipment	H/102/3958
FWE2/034	■ Cutting and Shaping Materials using Gas Cutting Machines	K/102/3959
FWE2/035	■ Cutting Materials using Saws and Abrasive Discs	D/102/3960

Plus one assessment route from Group C:

Group C

EAL Assessment Route Code		QCA Code
FWE2/008	■ Producing Fillet Welded Joints using a Manual Welding Process	T/102/3933
FWE2/009	■ Welding Materials with Mechanised Arc Welding Equipment	A/102/3934
FWE2/028	■ Assembling Components using Mechanical Fasteners	J/102/3953

FWE2/031	■ Slinging, Lifting and Moving Materials and Components	Y/102/3956
FWE2/036	■ Bending and Forming Plate using Power Operated Machines	H/102/3961
FWE2/037	■ Forming Platework using Power Rolling Machines	K/102/3962
FWE2/038	■ Producing Platework Assemblies	M/102/3963
FWE2/039	■ Producing Holes using Drilling Machines	T/102/3964

Pathway FWH: Structural Steelwork

Scheme Number/Pathway: NVQ: 100/3611/8FWH SVQ: G7E022FWH

All three mandatory assessment routes plus the assessment route in Group A, plus one assessment route from Group B, plus two assessment routes from Group C:

Group A

EAL Assessment Route Code		QCA Code
FWE2/021	■ Marking Out Components for Fabrication	M/102/3946

Plus one assessment route from Group B:

Group B

EAL Assessment Route Code		QCA Code
FWE2/032	■ Cutting Plate and Sections using Shearing Machines	D/102/3957
FWE2/033	■ Cutting Materials using Hand Operated Thermal Cutting Equipment	H/102/3958
FWE2/034	■ Cutting and Shaping Materials using Gas Cutting Machines	K/102/3959
FWE2/035	■ Cutting Materials using Saws and Abrasive Discs	D/102/3960

Plus two assessment routes from Group C:

Group C

EAL Assessment Route Code		QCA Code
FWE2/008	■ Producing Fillet Welded Joints using a Manual Welding Process	T/102/3933
FWE2/009	■ Welding Materials with Mechanised Arc Welding Equipment	A/102/3934
FWE2/028	■ Assembling Components using Mechanical Fasteners	J/102/3953
FWE2/031	■ Slinging, Lifting and Moving Materials and Components	Y/102/3956
FWE2/039	■ Producing Holes using Drilling Machines	T/102/3964

FWE2/040	■ Forming of Structural Sections using Machines	A/102/3965
FWE2/041	■ Producing Structural Steel Ancillary Components	F/102/3966
FWE2/042	■ Assembling Structural Steelwork	J/102/3967

Pathway FWI: Pipework Fabrication

Scheme Number/Pathway: NVQ: 100/3611/8FWI SVQ: G7E022FWI

All three mandatory assessment routes plus the assessment route in Group A, plus one assessment route from Group B, plus two assessment routes from Group C:

Group A

EAL Assessment Route Code		QCA Code
FWE2/021	■ Marking Out Components for Fabrication	M/102/3946

Plus one assessment route from Group B:

Group B

EAL Assessment Route Code		QCA Code
FWE2/033	■ Cutting Materials using Hand Operated Thermal Cutting Equipment	H/102/3958
FWE2/034	■ Cutting and Shaping Materials using Gas Cutting Machines	K/102/3959
FWE2/035	■ Cutting Materials using Saws and Abrasive Discs	D/102/3960

Plus two assessment routes from Group C:

Group C

EAL Assessment Route Code		QCA Code
FWE2/028	■ Assembling Components using Mechanical Fasteners	J/102/3953
FWE2/029	■ Bonding Engineering Materials using Adhesives	L/102/3954
FWE2/039	■ Producing Holes using Drilling Machines	T/102/3964
FWE2/043	■ Forming Pipework by Machine Bending	L/102/3968
FWE2/044	■ Producing Socket and Flange Fillet Welded Joints in Pipe using a Manual Welding Process	R/102/3969

Pathway FWJ: Plastic Welding

Scheme Number/Pathway: NVQ: 100/3611/8FWJ SVQ: G7E022FWJ

All three mandatory assessment routes plus two assessment routes from the choice below:

EAL Assessment Route Code		QCA Code
FWE2/045	■ Producing Composite Mouldings using Wet Lay-up Techniques	J/102/3970
FWE2/046	■ Producing Composite Mouldings using Pre-Preg Laminating Techniques	L/102/3971
FWE2/047	■ Producing Components by Acrylic Moulding	R/102/3972
FWE2/048	■ Vacuum Forming Composite Materials	Y/102/3973
FWE2/049	■ Trimming Composite Mouldings using Hand Tools	D/102/3974
FWE2/050	■ Identifying Defects in Composite Mouldings	H/102/3975
FWE2/051	■ Applying Surface Finishes to Composite Mouldings	K/102/3976
FWE2/052	■ Bonding Composite Mouldings	M/102/3977
FWE2/053	■ Producing Composite Assemblies	T/102/3978

Pathway FWK: Thermal Cutting

Scheme Number/Pathway: NVQ: 100/3611/8FWK SVQ: G7E022FWK

All three mandatory assessment routes plus two assessment routes from the choice below:

EAL Assessment Route Code		QCA Code
FWE2/026	■ Cutting and Shaping Materials using NC/CNC Laser Profiling Machines	A/102/3951
FWE2/027	■ Cutting and Shaping using NC/CNC Plasma or Gas Cutting Machines	F/102/3952
FWE2/033	■ Cutting Materials using Hand Operated Thermal Cutting Equipment	H/102/3958
FWE2/034	■ Cutting and Shaping Materials using Gas Cutting Machines	K/102/3959