

# **Model Curriculum**

## **Installer – Frameless Glass Doors/ Windows**

### **(Option: Installer- Framed Doors/ Windows)**

**SECTOR: Furniture & Fittings**  
**SUB-SECTOR: Architectural Fittings- Doors/  
Windows**  
**OCCUPATION: Installation**  
**REF ID: FFS/Q6104, V1.0**  
**NSQF LEVEL: 4**

## Certificate

### CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

**FURNITURE & FITTINGS SKILLS COUNCIL**

for

#### MODEL CURRICULUM

Complying to National Occupational Standards of  
Job Role/ Qualification Pack: 'Installer Frameless Glass  
Doors/Windows (Option: Installer- Framed  
Doors/Windows)' QP No. 'FFS/Q6104 NSQF Level 4'

Date of Issuance: August 22<sup>nd</sup>, 2019

Valid up to\*: September 22<sup>nd</sup>, 2022

\*Valid up to the next review date of the Qualification Pack

  
Authorized Signatory  
(Furniture & Fittings Skill Council)

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# Installer- Frameless Doors/ Windows (Option: Installer- Framed Doors/ Windows)

## CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of “Installer- Frameless Doors/ Windows (Option: Installer- Framed Doors/ Windows)”, in the “Furniture & Fittings” Sector/Industry and aims at building the following key competencies amongst the learner.

<b>Program Name</b>	<b>Installer- Frameless Doors/Windows(Option: Installer- Framed Doors/ Windows)</b>		
<b>Qualification Pack Name &amp; Reference ID</b>	FFS/Q6104, Version 1.0		
<b>Version No.</b>	1.0	<b>Version Update Date</b>	05/09/2018
<b>Pre-requisites to Training</b>	Class VIII		
<b>Training Outcomes</b>	<p><b>After completing this programme, participants will be able to:</b></p> <ul style="list-style-type: none"> <li>• Use basic tools, equipment and materials.</li> <li>• Prepare the work area for installation.</li> <li>• Interpret architectural drawings and technical specification.</li> <li>• Carry out measurements, marking of layouts.</li> <li>• Install glass door, windows with fittings and fixture.</li> <li>• Maintain the work area, tools and equipment.</li> <li>• Maintain environmental health and safety measures in terms of personal and equipment safety.</li> <li>• Work effectively with stakeholder, adhere to the organizational rules and regulations.</li> </ul>		

This course encompasses 5 out of 5 **Compulsory** NOS (National Occupational Standards), 1 out of 1 **Optional NOS** of “Installer- Frameless Glass Doors/ Windows” Qualification Pack issued by “Furniture & Fittings Skill Council”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<b>Introduction</b>  <b>Theory Duration</b> (hh:mm) 08:00  <b>Practical Duration</b> (hh:mm) 00:00  <b>Corresponding NOS Code</b> Bridge Module	<ul style="list-style-type: none"> <li>Recognize the importance of general discipline in the class room (do's and don'ts)</li> <li>Follow the general discipline in the classroom</li> <li>Explain the roles and responsibilities of an Installer-Frameless Doors/ Windows and its job opportunities</li> <li>Explain scope of furniture &amp; fittings industry</li> <li>Practice basic skills of communication</li> <li>State expectations and outcome from the training</li> </ul>	
2	<b>Understanding the organizational context/ company/ employer</b>  <b>Theory Duration</b> (hh:mm) 08:00  <b>Practical Duration</b> (hh:mm) 00:00  <b>Corresponding NOS Code</b> FFS/N6105	<ul style="list-style-type: none"> <li>Discuss codes, standards, policies, manuals, rules and regulation of the organization</li> <li>Clarify with the concerned persons in case of queries on procedures/products/ escalation/ any problem</li> </ul>	
3	<b>Maintenance of work area, tools and machines</b>  <b>Theory Duration</b> (hh:mm) 04:00  <b>Practical Duration</b> (hh:mm) 08:00  <b>Corresponding NOS Code</b> FFS/N8501	<ul style="list-style-type: none"> <li>Handle material, machinery, equipment and tools with safety</li> <li>Use materials optimally to minimize wastage</li> <li>Organise the working area by keeping it clean and hazard free</li> <li>Ensure to work in a comfortable position with the correct posture</li> </ul>	Hinges, fittings like floor springs, floor pivots, overhead closers, channels and fixings, handles, latch/bolts, door stopper, overhead door closer, butt hinges, Aldrop, tower bolts, floor springs, tape, measure tape, leveler, square, drill and bits, stapler, scissors and utility knife, screw drivers, hammer, chisel, sealant gun, saw,

			plumb line, electric screw driver, angle grinder, Allen key set in mm, dowels, pliers frame material i.e. wood, aluminum, fiber glass, vinyl as per design, hinges, pivot, floor spring, packing, shims, sealant, handles, locks etc.
4	<p><b>Ensuring health and safety at workplace</b></p> <p><b>Theory Duration</b> (hh:mm) 04:00</p> <p><b>Practical Duration</b> (hh:mm) 04:00</p> <p><b>Corresponding NOS Code</b> FFS/N8601</p>	<ul style="list-style-type: none"> <li>Examine the worksite for any possible health and safety hazards</li> <li>Apply instructions of manufacturer related to safe use of materials specifically chemicals and power equipment</li> <li>Apply safe handling and disposal process of waste and debris</li> <li>Report of any hazards and potential risks/threats to supervisors or other authorized personnel</li> <li>Carry out first aid activities in case of any accident</li> <li>Demonstrate use of appropriate personal protective equipment compatible to the work, compliant to relevant occupational health and safety guidelines</li> <li>Ensure correct body posture while working for long hours and carrying heavy materials</li> <li>Adhere to relevant occupational safety procedures while handling sharp tools, glass, heavy wood, and chemicals</li> <li>Ensure to follow good housekeeping practices by keeping the work area tidy</li> </ul>	Masks, safety glasses, ear muffs, safety footwear, gloves, aprons etc. First aid, different types of fire extinguisher
5	<p><b>Dealing with emergencies</b></p> <p><b>Theory Duration</b> (hh:mm) 04:00</p> <p><b>Practical Duration</b> (hh:mm) 04:00</p> <p><b>Corresponding NOS Code</b> FFS/N8601</p>	<ul style="list-style-type: none"> <li>Follow the electrical safety measures while working with electrical power tools and equipment</li> <li>Apply the evacuation procedures in the event of an emergency or an accident, fire or a natural calamity</li> <li>Comply with the restrictions imposed on harmful chemicals during working hours</li> <li>Demonstrate good housekeeping to prevent accidents</li> <li>Demonstrate the correct use of a fire extinguisher</li> <li>Respond promptly and appropriately to an accident situation or medical emergency</li> <li>Demonstrate the methods of accident prevention in the working area</li> </ul>	Masks, safety glasses, ear muffs, safety footwear, gloves, aprons, first aid, different types of fire extinguisher

6	<p><b>Interaction with seniors</b></p> <p><b>Theory Duration</b> (hh:mm) 04:00</p> <p><b>Practical Duration</b> (hh:mm) 04:00</p> <p><b>Corresponding NOS Code</b> FFS/N8801</p>	<ul style="list-style-type: none"> <li>Comply with the policies from the supervisor or other authorized personnel</li> <li>Report about any deviations to the appropriate authority</li> <li>Address the problems effectively</li> <li>Report to the concerned person of organization hierarchy in case of any grievance</li> </ul>	
7	<p><b>Work effectively</b></p> <p><b>Theory Duration</b> (hh:mm) 04:00</p> <p><b>Practical Duration</b> (hh:mm) 04:00</p> <p><b>Corresponding NOS Code</b> FFS/N8801</p>	<ul style="list-style-type: none"> <li>Coordinate with colleagues to achieve work objectives</li> <li>Display courteous behaviour</li> <li>Respond politely to customer queries and team members</li> <li>Adhere to the organization policy related to dress code at work place</li> <li>Finish the work within the timelines and maintain quality</li> <li>Value organizational policies and procedures</li> <li>Share information with team wherever and whenever required to enhance quality and productivity at work place</li> <li>Communicate with others clearly, at a pace and in a manner that helps them to understand</li> </ul>	
8	<p><b>Understand the work requirement</b></p> <p><b>Theory Duration</b> (hh:mm) 16:00</p> <p><b>Practical Duration</b> (hh:mm) 18:00</p> <p><b>Corresponding NOS Code</b> FFS/N6105</p>	<ul style="list-style-type: none"> <li>Get job instructions from responsible personnel</li> <li>Interact with supervisor in order to understand the client requirement</li> <li>Select the work site/ opening where the door/window is to be fixed from the drawing</li> <li>Select the frame and panel as per design specification</li> <li>Plan out an efficient sequence of work as per the job requirement and specification</li> </ul>	
9	<p><b>Prepare the work area for installation</b></p> <p><b>Theory Duration</b> (hh:mm)</p>	<ul style="list-style-type: none"> <li>Use appropriate materials and tools/machines suitable to carry out the given tasks</li> <li>Check the hardware that has come with the door for installation</li> </ul>	Hinges, fittings like floor springs, floor pivots, overhead closers, channels and fixings, handles, latch/bolts, door

	<p>24:00</p> <p><b>Practical Duration</b> (hh:mm) 42:00</p> <p><b>Corresponding NOS Code</b> FFS/N6105</p>	<ul style="list-style-type: none"> <li>• Report on any shortage or defect of materials/ hardware to the concerned person before commencement of work</li> <li>• Take the size of the opening</li> <li>• Match the size with the specification</li> <li>• Use approved procedures to inspect glass door visually for any possible defects as per required standard parameters prior to work</li> </ul>	<p>stopper, overhead door closer, butt hinges, Aldrop, tower bolts, floor springs, tape, measure tape, leveler, square, drill and bits, stapler, scissors and utility knife, screw drivers, hammer, chisel, sealant gun, saw, plumb line, electric screw driver, angle grinder, Allen key set in mm, dowels, pliers frame material i.e. wood, aluminum, fiber glass, vinyl as per design, hinges, pivot, floor spring, packing, shims, sealant, handles, locks etc.</p>
10	<p><b>Read and interpret architectural drawings, technical specification and work safely</b></p> <p><b>Theory Duration</b> (hh:mm) 24:00</p> <p><b>Practical Duration</b> (hh:mm) 36:00</p> <p><b>Corresponding NOS Code</b> FFS/N6105</p>	<ul style="list-style-type: none"> <li>• Comprehend the details from architectural drawings, manufacturer's specification of hardware and its installation relevant to Frameless door installation</li> <li>• Identify the surfaces and dimensions as per the drawing</li> <li>• Comply with health and safety legislation, regulations and other relevant guidelines</li> <li>• Lift, carry or move heavy doors/windows from one place to another using approved safe working practices</li> <li>• Ensure that the work area is free of clutters to carry out installation work smoothly</li> <li>• Use appropriate personal protective equipment compatible to the work, compliant to relevant occupational health and safety guidelines</li> </ul>	
11	<p><b>Carryout marking of layout</b></p> <p><b>Theory Duration</b> (hh:mm) 24:00</p> <p><b>Practical Duration</b> (hh:mm) 36:00</p>	<ul style="list-style-type: none"> <li>• Identify the work site/ opening where the door is to be installed</li> <li>• Match the size of opening with the specification</li> <li>• Report discrepancies if any prior to installation</li> <li>• Confirm that the given instructions and design are correct and complete</li> <li>• Use appropriate materials and tools suitable to carry out marking activities</li> <li>• Identify the surfaces and dimensions as per the drawing</li> <li>• Check the plumb, line and level of the</li> </ul>	<p>Hinges, fittings like floor springs, floor pivots, overhead closers, channels and fixings, handles, latch/bolts, door stopper, overhead door closer, butt hinges, Aldrop, tower bolts, floor springs, tape, measure tape, leveler, square, drill and bits, stapler,</p>



	<p><b>Corresponding NOS Code</b> FFS/N6106</p>	<p>opening</p> <ul style="list-style-type: none"> <li>• Carryout measurements for floor springs, wall/glass opening for installation</li> <li>• Calculate height and width as per design for installation</li> <li>• Carryout markings to guide activities of subordinates</li> </ul>	<p>scissors and utility knife, screw drivers, hammer, chisel, sealant gun, saw, plumb line, electric screw driver, angle grinder, Allen key set in mm, dowels, pliers frame material i.e. wood, aluminum, fiber glass, vinyl as per design, hinges, pivot, floor spring, packing, shims, sealant, handles, locks etc.</p>
12	<p><b>Perform installation activities</b></p> <p><b>Theory Duration</b> (hh:mm) 58:00</p> <p><b>Practical Duration</b> (hh:mm) 82:00</p> <p><b>Corresponding NOS Code</b> FFS/N6106</p>	<ul style="list-style-type: none"> <li>• Use appropriate hardware, materials and tools/machines suitable to carry out the given tasks</li> <li>• Check the hardware that has come with the door/window for installation</li> <li>• Report on any shortage or defect of materials/hardware to the concerned person before commencement of work</li> <li>• Fix the floor spring in the cutout on the floor</li> <li>• Set the speed of the floor spring as per specification</li> <li>• Fix the pivot and check alignment</li> <li>• Fix the patch fitting as per design requirement</li> <li>• Install the fixed partitions with the support of the patch fittings before door installation</li> <li>• Use hinges to fix the glass door on the glass opening or wall opening</li> <li>• Install the door closer as per design specification</li> <li>• Set the required speed if mentioned in the design specification</li> <li>• Fix the door handle at the appropriate height</li> <li>• Choose appropriate drill blades, depending upon the thickness of the glass and the hardware to be used</li> <li>• Ensure that the work area is free of clutters to carry out installation work smoothly</li> </ul>	<p>Hinges, fittings like floor springs, floor pivots, overhead closers, channels and fixings, handles, latch/bolts, door stopper, overhead door closer, butt hinges, Aldrop, tower bolts, floor springs, tape, measure tape, leveler, square, drill and bits, stapler, scissors and utility knife, screw drivers, hammer, chisel, sealant gun, saw, plumb line, electric screw driver, angle grinder, Allen key set in mm, dowels, pliers frame material i.e. wood, aluminum, fiber glass, vinyl as per design, hinges, pivot, floor spring, packing, shims, sealant, handles, locks etc.</p>

<p><b>Compulsory NOS: 420 hrs.</b></p> <p><b>Theory Duration (hh:mm)</b> <b>182:00</b></p> <p><b>Practical duration (hh:mm)</b> <b>238:00</b></p>	<p><b>Unique Equipment Required:</b></p> <p>Safety Masks, safety glasses, ear plug, safety footwear, gloves first aid, different types of fire extinguisher, hardware for door, windows Hinges, fittings like floor springs, floor pivots, overhead closers, channels and fixings, handles, latch/bolts, door stopper, overhead door closer, butt hinges, Aldrop, tower bolts, floor springs, tape, measure tape, leveler, square, drill and bits, stapler, scissors and utility knife, screw drivers, hammer, chisel, sealant gun, saw, plumb line, electric screw driver, angle grinder, Allen key set in mm, dowels, pliers etc.</p> <p>Materials and Hardware: frame material i.e. wood, aluminum, fiber glass, vinyl as per design, hinges, pivot, floor spring, packing, shims, sealant, handles, locks etc.</p>
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**OPTIONS (Optional to choose any or all or none)**

**Option 1: Installer- Framed Doors/ Windows**

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p><b>Understand the work requirement</b></p> <p><b>Theory Duration (hh:mm)</b> 02:00</p> <p><b>Practical Duration (hh:mm)</b> 00:00</p> <p><b>Corresponding NOS Code</b> FFS/N6103</p>	<ul style="list-style-type: none"> <li>Obtain job instructions from responsible personnel</li> <li>Interact with supervisor in order to understand the client requirement</li> <li>Identify the work site/ opening where the door/window is to be fixed from the drawing</li> <li>Identify the frame and panel requirement as per design specification</li> <li>Plan out an efficient sequence of work as per the job requirement and specification</li> </ul>	
2	<p><b>Prepare the work area for installation</b></p> <p><b>Theory Duration (hh:mm)</b> 02:00</p> <p><b>Practical Duration (hh:mm)</b> 02:00</p> <p><b>Corresponding NOS Code</b> FFS/N6103</p>	<ul style="list-style-type: none"> <li>Use appropriate materials and tools/machines suitable to carry out the given tasks</li> <li>Check the hardware that has come with the door for installation</li> <li>Report on any shortage or defect of materials/hardware to the concerned person before commencement of work</li> <li>Check that the selected tools and equipment are in safe working condition and ready for use</li> <li>Take the size of the opening and match the same with the specification document/ job sheet and report discrepancies if any prior to installation</li> </ul>	<p>Hinges, fittings like floor springs, floor pivots, overhead closers, channels and fixings, handles, latch/bolts, door stopper, overhead door closer, butt hinges, Aldrop, tower bolts, floor springs, tape, measure tape, leveler, square, drill and bits, stapler, scissors and utility knife, screw drivers, hammer, chisel, sealant gun, saw, plumb line, electric screw driver, angle</p>

			grinder, Allen key set in mm, dowels, pliers frame material i.e. wood, aluminum, fiber glass, vinyl as per design, hinges, pivot, floor spring, packing, shims, sealant, handles, locks etc.
3	<p><b>Read and interpret architectural drawings, technical specification and work safely</b></p> <p><b>Theory Duration</b> (hh:mm) 02:00</p> <p><b>Practical Duration</b> (hh:mm) 02:00</p> <p><b>Corresponding NOS Code</b> FFS/N6103</p>	<ul style="list-style-type: none"> <li>• Interpret the details from architectural drawings relevant to framed door installation</li> <li>• Identify the surfaces and dimensions as per the drawing</li> <li>• Work safely at all times, complying with health and safety legislation, regulations and other relevant guidelines</li> <li>• Maintain correct body posture while standing and working for long hours and carrying heavy materials</li> <li>• Ensure that the work area is free of clutters to carry out installation work smoothly</li> <li>• Use appropriate personal protective equipment</li> </ul>	
4	<p><b>Carryout marking of layout and fix the frame in the opening</b></p> <p><b>Theory Duration</b> (hh:mm) 04:00</p> <p><b>Practical Duration</b> (hh:mm) 04:00</p> <p><b>Corresponding NOS Code</b> FFS/N6104</p>	<ul style="list-style-type: none"> <li>• Confirm that the given instructions and design are correct and complete</li> <li>• Obtain appropriate materials and tools suitable to carry out marking activities</li> <li>• Identify the surfaces and dimensions as per the drawing</li> <li>• Calculate height and width as per design for installation</li> <li>• Identify the work site/ opening where the frame and the door/window panel is to be installed</li> <li>• Take the size of the opening and match the same with the specification document/ job sheet and report discrepancies if any prior to installation</li> <li>• Take the size of the frame and match it with the glass on which the frame is to be fixed</li> <li>• Carry out markings to guide activities of subordinates</li> <li>• Mark the points on the glass to fix the frame</li> <li>• Confirm the door location against the drawing</li> <li>• Mark the dimensions on the opening are</li> </ul>	<p>Measure tape, leveler, square, drill and bits, stapler, scissors and utility knife, screw drivers, hammer, chisel, sealant gun, saw, plumb line, electric screw driver, angle grinder, Allen key set in mm, dowels, pliers etc.</p> <p>Materials and Hardware: frame material i.e. wood, aluminum, fiber glass, vinyl as per design, hinges, pivot, floor spring, packing, shims, sealant, handles, locks etc.</p>

		<p>as specified in the drawing the given tasks</p> <ul style="list-style-type: none"> <li>• Check the hardware that has come with the frame and door for installation to match the door to be installed</li> <li>• Report on any shortage or defect of materials/hardware to the concerned person before commencement of work</li> <li>• Make provisions of openings for the installation of hinges in the frame</li> <li>• Check for right angle and sureness in the frame</li> <li>• Check visually for any surface damage before installation</li> <li>• Determine the finished floor height</li> <li>• Use hinges and screws to fix the frame on the opening or wall</li> <li>• Choose appropriate drill bits, depending upon the thickness of the wall and the frame</li> <li>• Ensure that the work area is free of clutters to carry out installation work smoothly</li> </ul>	
5	<p><b>Perform door installation activities for swing doors</b></p> <p><b>Theory Duration</b> (hh:mm) 04:00</p> <p><b>Practical Duration</b> (hh:mm) 08:00</p> <p><b>Corresponding NOS Code</b> FFS/N6104</p>	<ul style="list-style-type: none"> <li>• Ensure that the frame and panel are of the correct type, size and quality as per the specification document</li> <li>• Make provisions of openings for the installation of hinges in the door</li> <li>• Check for right angle and sureness in the door</li> <li>• Fix the hinges in the door before fixing it on the frame</li> <li>• Ensure proper alignment</li> <li>• Verify the under-cut dimensions before fastening the hinges</li> <li>• Envelop the glass between the wooden or aluminum frame in case of framed doors/windows</li> <li>• Check the measurements of the glass and opening</li> <li>• Ensure that there is a consistent gap not more than 5mm between the door panel and the frame</li> <li>• Ensure that the door and the frame corners maintained at right angel</li> <li>• Fix the door handle at the appropriate height</li> <li>• Choose appropriate drill bits, depending upon the thickness of the material to be used</li> <li>• Install the door closer as per design specification and set the required speed</li> </ul>	<p>Measure tape, leveler, square, drill and bits, stapler, scissors and utility knife, screw drivers, hammer, chisel, sealant gun, saw, plumb line, electric screw driver, angle grinder, Allen key set in mm, dowels, pliers etc.</p> <p>Materials and Hardware: frame material i.e. wood, aluminum, fiber glass, vinyl as per design, hinges, pivot, floor spring, packing, shims, sealant, handles, locks etc.</p>

6	<p><b>Perform door installation activities for sliding doors</b></p> <p><b>Theory Duration</b> (hh:mm) 08:00</p> <p><b>Practical Duration</b> (hh:mm) 22:00</p> <p><b>Corresponding NOS Code</b> FFS/N6104</p>	<ul style="list-style-type: none"> <li>• Check for plumb, line and level of the opening</li> <li>• Measure opening width at top, middle, and bottom of opening</li> <li>• Ensure size is correct, if not, the opening may need to be corrected</li> <li>• Chip out any concrete that stick out from the mounting surface and may interfere with the installation</li> <li>• Assemble the main frame header, jambs and sill in the correct position</li> <li>• Clean the end of the jambs to remove grease and debris</li> <li>• Fit the frame into the opening and seal the frame</li> <li>• Secure the frame in the opening using the required installation hardware</li> <li>• Seal all the four corners of the frame as per design specification</li> <li>• Set frame in opening and shim as necessary to make frame plumb, level and square</li> <li>• Install the main frame head screw covers and check for movement/sliding of the door</li> <li>• Install the panel so that the top of panel slips over track frame header</li> <li>• Check the panel wheels for movement/sliding</li> </ul>	<p>Measure tape, leveler, square, drill and bits, stapler, scissors and utility knife, screw drivers, hammer, chisel, sealant gun, saw, plumb line, electric screw driver, angle grinder, Allen key set in mm, dowels, pliers etc.</p> <p>Materials and Hardware: frame material i.e. wood, aluminum, fiber glass, vinyl as per design, hinges, pivot, floor spring, packing, shims, sealant, handles, locks etc.</p>
	<p><b>Option 1: Total Duration: 60 hrs</b></p> <p><b>Theory Duration: 22:00</b></p> <p><b>Practical duration: 38:00</b></p>	<p><b>Unique Equipment Required:</b> Safety Masks, safety glasses, ear plug, safety footwear, gloves first aid, different types of fire extinguisher, hardware for door, windows, Hinges, fittings like floor springs, floor pivots, overhead closers, channels and fixings, handles, latch/bolts, door stopper, overhead door closer, butt hinges, Aldrop, tower bolts, floor springs, tape, measure tape, leveler, square, drill and bits, stapler, scissors and utility knife, screw drivers, hammer, chisel, sealant gun, saw, plumb line, electric screw driver, angle grinder, Allen key set in mm, dowels, pliers etc.</p> <p>Materials and Hardware: frame material i.e. wood, aluminum, fiber glass, vinyl as per design, hinges, pivot, floor spring, packing, shims, sealant, handles, locks etc.</p>	
	<p><b>GRAND Total Duration</b></p> <p><b>Minimum Duration for the QP= 420 hrs</b> <b>Theory: 182 hrs</b> <b>Practical: 238 hrs</b></p>	<p><b>Unique Equipment Required:</b> Safety Masks, safety glasses, ear plug, safety footwear, gloves first aid, different types of fire extinguisher, hardware for door, windows, Hinges, fittings like floor springs, floor pivots, overhead closers, channels and fixings, handles, latch/bolts, door stopper, overhead door closer, butt hinges, Aldrop, tower bolts, floor springs, tape, measure tape, leveler, square, drill and bits, stapler, scissors and utility knife, screw drivers, hammer, chisel, sealant gun, saw, plumb line, electric screw driver, angle grinder, Allen key set in mm, dowels, pliers etc.</p>	

	<b>Maximum Duration for the QP= 480 hrs</b> <b>Theory: 204 hrs</b> <b>Practical: 276 hrs</b>	Materials and Hardware: frame material i.e. wood, aluminum, fiber glass, vinyl as per design, hinges, pivot, floor spring, packing, shims, sealant, handles, locks etc.
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(This syllabus/ curriculum has been approved by [Furniture & Fittings Skill Council](#))

## Trainer Prerequisites for Job role: “Installer Frameless Glass Door/ Windows (Option: Installer Framed Doors/ Windows)” mapped to Qualification Pack: “FFS/Q6104”

Sr. No.	Area	Details
1	<b>Description</b>	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “FFS/Q6104”.
2	<b>Personal Attributes</b>	Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team, well-organized and focused, eager to learn and keep oneself updated with the latest trends in the mentioned field.
3	<b>Minimum Educational Qualifications</b>	Minimum 10 <sup>th</sup> pass Minimum age 25 year
4a	<b>Domain Certification</b>	Certified for Job Role: “ <u>Installer- Frameless Glass Doors/ Windows(Option: Installer Framed Doors/ Windows)</u> ” mapped to QP: “FFS/Q6104”. Minimum 80% score as per respective SSC guidelines.
4b	<b>Platform Certification</b>	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “MEP/Q0102”. Minimum accepted score 80% as per respective SSC guidelines.
5	<b>Experience</b>	<ul style="list-style-type: none"> <li>• Minimum five year site experience in woodworking and modular furniture.</li> <li>• Minimum two years of relevant experience</li> </ul>

## Annexure: Assessment Criteria

<b><u>Job Role</u></b>	Installer Frameless Door/Windows
<b><u>Qualification Pack</u></b>	FFS/Q6104
<b><u>Sector Skill Council</u></b>	Furniture & Fittings Skill Council

### **Guidelines for Assessment**

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria (as per assessment criteria below)
5. To pass the Qualification Pack, every trainee should score a minimum of 70% in every NOS.
6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.

<b>Compulsory NOS</b>		<b>Marks Allocation</b>			
<b>Total Marks: 500+200=700</b>					
<b>Assessable Outcomes</b>	<b>Assessment Criteria for Outcomes</b>	<b>Total Marks</b>	<b>Out of</b>	<b>Theory</b>	<b>Skills Practical</b>
FFS/N6105 Planning for Installation of Frameless Glass Doors /windows	PC1. obtain job instructions from responsible personnel  Job instruction: design, hardware requirement, dimensions, size of fixed partitions etc.	100	4	2	2
	PC2. interact with supervisor in order to understand the client requirement		4	2	2
	PC3. read and confirm that the given instructions and design are complete and correct		4	4	0
	PC4. identify the work site/ opening where the door is to be fixed as per design		4	0	4
	PC5. plan out an efficient sequence of work as per the job requirement and specification		4	2	2
	PC6. obtain appropriate hardware, materials and tools/machines suitable to carry out the given tasks		4	0	4



	<p>Tools &amp; machines: e.g. measuring tape, leveler, square, drill and bits, stapler, scissors and utility knife, screw drivers, hammer, chisel, sealant gun, saw, plumb line, electric screw driver, angle grinder, allen key set in mm, dowels, pliers etc.</p> <p>Hardware and Material: hinges, pivot, floor spring etc. requirement, hinges, pivot, floor spring, patch fitting, handles, locks, packing, sealant etc.</p>				
	PC7. identify and check the hardware that has come with the door for installation		4	0	4
	PC8. report on any shortage or defect of materials/hardware to the concerned person before commencement of work		4	2	2
	PC9. check that the selected tools & equipment are in safe working condition and ready for use		4	0	4
	PC10. take the size of the opening and match the same with the specification document/ job sheet and report discrepancies if any prior to installation		4	2	2
	PC11. use approved procedures to inspect glass door visually for any possible defects as per required standard parameters prior to work  Defects: unevenness, chipped glass, waviness, bend in glass etc.		5	0	5
	PC12. read and interpret the details from architectural drawings relevant to door and fixed partition installation		5	5	0
	PC13. read and understand manufacturer's specification for hardware and its installation		5	5	0
	PC14. identify the surfaces and dimensions as per the drawing		5	0	5
	PC15. read and understand the scope of work		5	0	5

	PC16. return all the used tools and materials safely to the appropriate personal		5	0	5
	PC17. work safely at all times, complying with health and safety legislation, regulations and other relevant guidelines		5	2	3
	PC18. maintain correct body posture while standing and working for long hours and carrying heavy materials		5	0	5
	PC19. lift, carry or move heavy glass /windows from one place to another using approved safe working practices		5	0	5
	PC20. ensure that the work area is free of clutters to carry out installation work smoothly		5	0	5
	PC21. select and use appropriate personal protective equipment compatible to the work and compliant to relevant occupational health and safety guidelines  Personal protective equipment: masks, safety glasses, head protection, ear muffs, safety footwear, gloves, aprons, warning signs and tapes, fire extinguisher, first aid kit		5	2	3
	PC22. follow electrical safety measures while working with electrically powered tools & equipment		5	2	3
		<b>Total</b>	<b>100</b>	<b>30</b>	<b>70</b>
FFS/N6106 Install Frameless Glass /windows	PC1. identify the work site/ opening where the door is to be installed	100	3	0	3
	PC2. take the size of the opening and match the same with the specification document/ job sheet and report discrepancies if any prior to installation		3	1	3
	PC3. read and confirm that the given instructions and design are correct and complete		3	0	3
	PC4. obtain appropriate materials and tools suitable to carry out marking activities		4	2	2

PC5. identify the surfaces and dimensions as per the drawing	4	2	2
PC6. check the plumb, line and level of the opening	3	0	3
PC7. carryout measurements for floor springs, wall/glass opening for installation	4	1	3
PC8. calculate height and width as per design for installation	4	2	2
PC9. carry out markings to guide activities of subordinates	3	1	2
PC10. obtain appropriate materials, hardware and tools/machines suitable to carry out the given tasks  Tools & machines: e.g. measuring tape, leveler, square, drill and bits, stapler, scissors and utility knife, screw drivers, hammer, chisel, sealant gun, saw, plumb line, electric screw driver, angle grinder, allen key set in mm, dowels, pliers etc.  Hardware and Material: hinges, pivot, floor spring etc. requirement, hinges, pivot, floor spring, patch fitting, handles, locks, packing, sealant etc.	3	0	3
PC11. identify and check the hardware that has come with the door for installation	3	0	3
PC12. report on any shortage or defect of materials/hardware to the concerned person before commencement of work	3	1	2
PC13. take the size of the opening and match the same with the specification document/ job sheet and report discrepancies if any prior to installation	3	1	2
PC14. check and ensure the size of the opening matched the size of the door prior to installation	3	0	3
PC15. ensure that the size of the fixed partition matches the door and the opening	5	1	4

	PC16. ensure correct methods of holding and centering work piece i.e glass door		4	2	2
	PC17. ensure appropriate lifting devices for lifting glass /windows  Lifting device: glass holders with single and multiple knobs		3	1	2
	PC18. fix the floor spring in the cutout on the floor		4	2	2
	PC19. set the speed of the floor spring as per specification		4	0	4
	PC20. fix the top and the bottom pivot and check alignment		4	0	4
	PC21. fix the patch fitting as per design requirement		4	2	2
	PC22. install the fixed partitions with the support of the patch fittings before door installation		5	2	3
	PC23. use hinges to fix the glass door on the glass opening or wall opening		5	0	5
	PC24. install the door closer as per design specification and set the required speed if mentioned in the design specification		4	0	4
	PC25. fix the door handle at the appropriate height  Appropriate Height: height from the center of the door handle should be 1040mm of the finish floor level		4	2	2
	PC26. choose appropriate drill blades, depending upon the thickness of the glass and the hardware to be used		4	2	2
	PC27. ensure that the work area is free of clutters to carry out installation work smoothly		4	0	4
		<b>Total</b>	<b>100</b>	<b>25</b>	<b>75</b>
	PC1. handle materials, machinery, equipment and tools safely and correctly	100	8	4	4

FFS/N8501 Maintenance of work area, tools and machines	PC2. use correct handling procedures		8	4	4
	PC3. use materials to minimize waste		8	4	4
	PC4. prepare and organize work		8	4	4
	PC5. maintain a clean and hazard free working area		8	4	4
	PC6. deal with work interruptions		8	4	4
	PC7. maintain tools equipment and consumables		8	4	4
	PC8. work in a comfortable position with the correct posture		8	4	4
	PC9. use cleaning equipment and methods appropriate for the work to be carried out		8	4	4
	PC10. dispose of waste safely in the designated location		8	4	4
	PC11. store cleaning equipment safely after use		7	3	4
	PC12. ensure safe and correct handling of materials, equipment and tools		7	3	4
	PC13. maintain appropriate environment to protect stock from pilfering, theft, damage and deterioration		6	4	2
			<b>Total</b>	<b>100</b>	<b>50</b>
FFS/N8601 Ensure health and safety at workplace	PC1. work safely at all times, complying with health and safety legislation, regulations and other relevant guidelines		3	2	1
	PC2. ensure that health and safety instructions applicable to the work place are being followed		3	1	2
	PC3. check the worksite for any possible health and safety hazards		3	1	2
	PC4. follow manufacturers' instructions and job specifications relating to safe use of materials specifically chemicals and power equipment		3	1	2

	PC5. ensure safe handling and disposal of waste and debris		3	0	3
	PC6. identify and report any hazards and potential risks/ threats to supervisors or other authorized personnel  Hazards: sharp edged tools, hazardous surfaces, physical hazards, electrical hazards, health hazards from chemicals and other such toxic material etc.		3	1	2
	PC7. undertake first aid activities in case of any accident, if required and asked to do so		3	0	3
	PC8. select and use appropriate personal protective equipment compatible to the work and compliant to relevant occupational health and safety guidelines  Personal protective equipment: masks, safety glasses, head protection, ear muffs, safety footwear, gloves, aprons etc.		3	1	2
	PC9. maintain correct body posture while standing and working for long hours and carrying heavy materials		3	0	3
	PC10. lift, carry or move heavy wooden furniture and accessories from one place to another using approved safe working practices		3	0	3
	PC11. handle all required tools, machines , materials & equipment safely		4	2	2
	PC12. adhere to relevant occupational safety policies while handling sharp tools to make and install furniture and fittings		4	2	2
	PC13. take safety measures while handling glass, heavy wood, materials, chemicals etc.		3	0	3
	PC14. apply good housekeeping practices at all times  Good housekeeping practices: clean/tidy work areas, removal/disposal of waste products, protect surfaces		3	0	3

	PC15. report accident/incident report to authorised personal		3	2	1
	PC16. perform basic safety checks before operation of all machines, tools and electrical equipment		3	1	2
	PC17. follow recommended material handling procedure to control damage and personal injury		3	2	1
	PC18. follow safe working practices at all times		3	1	2
	PC19. follow appropriate procedure in case a of fire emergency		3	1	2
	PC20. follow electrical safety measures while working with electrically powered tools & equipment		3	1	2
	PC21. follow agreed work location procedures in the event of an emergency or an accident		4	2	2
	PC22. follow emergency and evacuation procedures in case of accidents, fires, natural calamities		3	1	2
	PC23. check and ensure general health and safety equipment are available at work site  General health and safety equipment: fire extinguishers; first aid equipment; safety instruments and clothing; safety installations (e.g. fire exits, exhaust fans)		3	1	2
	PC24. comply with restrictions imposed on harmful chemicals inside work area during working hours		4	2	2
	PC25. correctly demonstrate rescue techniques applied during fire hazard		3	0	3
	PC26. demonstrate good housekeeping in order to prevent fire hazards		3	0	3
	PC27. demonstrate the correct use of a fire extinguisher		3	0	3

	PC28. demonstrate how to free a person from electrocution		3	1	2
	PC29. respond promptly and appropriately to an accident situation or medical emergency		3	0	3
	PC30. participate in emergency procedures  Emergency procedures: raising alarm, safe/efficient, evacuation, correct means of escape, correct assembly point, roll call, correct return to work		3	0	3
	PC31. use the various appropriate fire extinguishers on different types of fires correctly  Types of fires: Class A: e.g. ordinary solid combustibles, such as wood, paper, cloth, plastic, charcoal, etc.; Class B: flammable liquids and gases, such as gasoline, propane, diesel fuel, tar, cooking oil, and similar substances; Class C: e.g. electrical equipment such as appliances, wiring, breaker panels, etc.  These categories of fires become Class A, B, and D fires when the electrical equipment that initiated the fire is no longer receiving electricity); Class D: combustible metals such as magnesium, titanium, and sodium (These fires burn at extremely high temperatures and require special suppression agents)		3	1	2
	PC32. state methods of accident prevention in the work environment  Methods of accident prevention: training in health and safety procedures; using health and safety procedures; use of equipment and working practices (such as safe carrying procedures); safety notices, advice; instruction from colleagues and supervisors		3	3	0
		<b>Total</b>	<b>100</b>	<b>30</b>	<b>70</b>
FFS/ N8801	PC1. seek assistance from supervisor or any such appropriate authority as and when required		3	1	2



Work effectively with others	PC2. ask questions and seek clarifications on work tasks whenever required		3	1	2
	PC3. seek and obtain clarifications on policies and procedures, from the supervisor or other authorized personnel		5	5	0
	PC4. identify and report any possible deviations to appropriate authority		3	1	2
	PC5. address the problems effectively and report if required to immediate supervisor appropriately		5	2	3
	PC6. receive instructions clearly from superiors and respond effectively on the same		3	1	2
	PC7. follow escalation matrix in case of any grievance		5	4	1
	PC8. accurately receive information and instructions from the supervisor related to one's work		5	3	2
	PC9. coordinate and cooperate with colleagues to achieve work objectives		5	0	5
	PC10. display courteous behaviour at all times		5	0	5
	PC11. respond politely to customer queries and other team members		5	1	4
	PC12. follow work place dress code		5	0	5
	PC13. keep work area in a tidy and organized state		5	0	5
	PC14. adhere to time lines and quality standards		5	2	3
	PC15. follow organizational policies and procedures		4	4	0
	PC16. share information with team wherever and whenever required to enhance quality and productivity at work place		5	2	3
	PC17. work together with co-workers in a synchronized manner		5	0	5

	PC18. communicate with others clearly, at a pace and in a manner that helps them to understand		5	2	3
	PC19. show respect to other and their work		5	0	5
	PC20. display active listening skills while interacting with others at work		5	0	5
	PC21. demonstrate responsible and disciplined behaviors at the workplace		5	0	5
	PC22. disciplined behaviors: e.g. punctuality; completing tasks as per given time and standards; not gossiping and idling time; eliminating waste, honesty, etc.		4	1	3
		<b>Total</b>	<b>100</b>	<b>30</b>	<b>70</b>

**Optional: FFS/Q6103 Installer- Framed Doors/ Windows**

Optional NOS		Marks Allocation			
<b>Total Marks: 500+200 = 700</b>					
Assessment Outcomes	Assessment Criteria for Outcomes	Total Marks	Out of	Theory	Practical
FFS/N6103 Planning for Installation of Framed Door/windows	PC1. obtain job instructions from responsible personnel  Job instruction: design, hardware requirement, frame instruction, dimensions etc.	100	4	1	3
	PC2. interact with supervisor in order to understand the client requirement		3	1	2
	PC3. read and confirm that the given instructions and design are complete and correct		3	1	2
	PC4. identify the work site/ opening where the door is to be fixed from the drawing		4	0	4
	PC5. identify the frame and panel requirement as per design specification  Frame requirement: frame size, material i.e wood or aluminums etc., full frame, one sides frame, two sided frame etc.		5	2	3

	PC6. plan out an efficient sequence of work as per the job requirement and specification		5	2	3
	PC7. obtain appropriate materials and tools/machines suitable to carry out the given tasks  Tools & machines: e.g. measure tape, leveler, square, drill and bits, stapler, scissors and utility knife, screw drivers, hammer, chisel, sealant gun, saw, plumb line, electric screw driver, angle grinder, allen key set in mm, dowels, pliers etc.  Materials and Hardware: frame material i.e wood, aluminum, fiber glass, vinyl as per design, hinges, pivot, floor spring, packing, shims, sealant, handles, locks etc.		6	2	4
	PC8. identify and check the hardware that has come with the door for installation		4	1	3
	PC9. report on any shortage or defect of materials/hardware to the concerned person before commencement of work		3	0	3
	PC10. check that the selected tools & equipment are in safe working condition and ready for use		3	0	3
	PC11. take the size of the opening and match the same with the specification document/ job sheet and report discrepancies if any prior to installation		5	2	3
	PC12. take the size of the frame and match it with the door panel		5	1	4
	PC13. use approved procedures to inspect glass door as well as the frame visually for any possible defects as per required standard parameters prior to work  Defects: unevenness, chipped glass, size variation, waviness, bend in glass etc.		5	2	3
	PC14. read and interpret the details from architectural drawings relevant to framed door installation		6	2	4

	PC15. read and understand manufacturer's specification of hardware and its installation		5	3	2
	PC16. identify the surfaces and dimensions as per the drawing		4	1	3
	PC17. read and understand the scope of work		4	2	2
	PC18. return all the used tools and materials safely to the appropriate personal		4	1	3
	PC19. work safely at all times, complying with health and safety legislation, regulations and other relevant guidelines		4	2	2
	PC20. maintain correct body posture while standing and working for long hours and carrying heavy materials		4	1	3
	PC21. lift, carry or move heavy frame and /windows from one place to another using approved safe working practices		4	1	3
	PC22. ensure that the work area is free of clutters to carry out installation work smoothly		3	0	3
	PC23. select and use appropriate personal protective equipment compatible to the work and compliant to relevant occupational health and safety guidelines  Personal protective equipment: masks, safety glasses, head protection, ear muffs, safety footwear, gloves, aprons etc.		4	1	3
	PC24. follow electrical safety measures while working with electrically powered tools & equipment		3	1	2
		<b>Total</b>	<b>100</b>	<b>30</b>	<b>70</b>
FFS/ N 6104 Install Framed Door/Windows	PC1. read and confirm that the given instructions and design are correct and complete	100	1	0	1
	PC2. obtain appropriate materials and tools suitable to carry out marking activities		1	0	1
	PC3. identify the surfaces and dimensions as per the drawing		1	0	1

PC4. calculate height and width as per design for installation		2	1	1
PC5. identify the work site/ opening where the frame and the door panel is to be installed		1	0	1
PC6. take the size of the opening and match the same with the specification document/ job sheet and report discrepancies if any prior to installation		2	1	1
PC7. take the size of the frame and match it with the glass on which the frame is to be fixed		2	0	2
PC8. check the plumb line and level of the opening		1	0	1
PC9. carry out markings to guide activities of subordinates		2	1	1
PC10. mark the points on the glass to fix the frame		2	0	2
PC11. measure and mark against the jamb where any shims are needed		1	0	1
PC12. confirm the door location against the drawing and mark the dimensions on the opening are as specified in the drawing		1	1	0
PC13. obtain appropriate materials and tools/machines suitable to carry out the given tasks  Tools & machines: e.g. measure tape, leveler, square, drill and bits, stapler, scissors and utility knife, screw drivers, hammer, chisel, sealant gun, saw, plumb line, electric screw driver, angle grinder, allen key set in mm, dowels, pliers etc.  Materials and Hardware: frame material i.e wood, aluminum, fiber glass, vinyl as per design, hinges, pivot, floor spring, packing, shims, sealant, handles, locks etc.		2	1	1
PC14. identify and check the hardware that has come with the frame and door for installation to match the door to be installed		1	0	1

PC15. report on any shortage or defect of materials/hardware to the concerned person before commencement of work		1	0	1
PC16. take the size of the opening and match the same with the specification document/ job sheet and report discrepancies if any prior to installation		2	1	1
PC17. align the door frame against the setting out lines and ensure proper alignment		2	0	2
PC18. secure the frame temporarily using wedges or clips to obtain required vertical and horizontal alignment		2	1	1
PC19. fix the frame in position using architectural hardware as mentioned in the design		2	1	1
PC20. grout the gap between the wall and the door frame		2	0	2
PC21. make provisions of openings for the installation of hinges in the frame		2	1	1
PC22. check for right angle and squareness in the frame		1	0	1
PC23. check visually for any surface damage before installation		1	0	1
PC24. determine the finished floor height		2	1	1
PC25. ensure correct methods of holding and centering work piece i.e frame and the door panel		2	1	1
PC26. use hinges and screws to fix the frame on the opening or wall		2	0	2
PC27. choose appropriate drill bits, depending upon the thickness of the wall and the frame		1	0	1
PC28. ensure that the work area is free of clutters to carry out installation work smoothly		1	0	1
PC29. ensure that the frame, panel and architrave are of the correct type, size and quality as per the specification document		2	1	1

PC30. make provisions of openings for the installation of hinges in the door		2	0	2
PC31. check for right angle and squareness in the door		1	1	0
PC32. fix the hinges in the door before fixing it on the frame		2	0	2
PC33. ensure proper alignment and verify the under-cut dimensions before fastening the hinges		2	1	1
PC34. envelop the glass between the wooden or aluminium frame in case of framed /windows with the support of sealant, mouldings, screws etc.		3	1	2
PC35. check the measurements of the glass and opening and then carefully insert the new glass into the door-frame opening		3	1	2
PC36. check and ensure that there is a consistent gap not more than 5mm between the door panel and the frame		2	1	1
PC37. ensure that the door and the frame corners maintained at right angle		2	1	1
PC38. fix the door handle at the appropriate height  Appropriate Height: height from the center of the door handle should be 1040mm of the finish floor level		2	1	1
PC39. choose appropriate drill bits, depending upon the thickness of the material to be used		2	1	1
PC40. install the door closer as per design specification and set the required speed if mentioned in the design specification		2	1	1
PC41. select and fix the latch if mentioned in the design specification		1	0	1
PC42. check for plumb, line and level of the opening		2	0	2

PC43. measure opening width at top, middle, and bottom of opening		2	0	2
PC44. ensure size is correct, if not, the opening may need to be corrected		2	1	1
PC45. chip out any concrete that stick out from the mounting surface and may interfere with the installation		1	0	1
PC46. assemble the main frame header, jambs and sill in the correct position		2	1	1
PC47. clean the end of the jambs to remove grease and debris		2	0	2
PC48. fit the frame into the opening and seal the frame		2	1	1
PC49. secure the frame in the opening using the required installation hardware		3	1	2
PC50. seal all the four corners of the frame as per design specification		2	0	2
PC51. set frame in opening and shim as necessary to make frame plumb, level and square		2	1	1
PC52. install the main frame head screw covers and check for movement/sliding of the door		3	1	2
PC53. install the panel so that the top of panel slips over track frame header		3	1	2
PC54. check the panel wheels for movement/sliding		2	1	1
PC55. envelop the glass between the wooden or aluminium frame in case of framed /windows with the support of sealant, mouldings, screws etc.		3	1	2
	<b>Total</b>	<b>100</b>	<b>30</b>	<b>70</b>