







# Machine Operator- Bamboo Slivering

QP Code: FFS/Q4105

Version: 1.0

NSQF Level: 3

Furniture and Fittings Skill Council || 407-408, DLF City Court, M G Road, Sikanderpur Gurgaon - 122002







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### FFS/Q4105: Machine Operator- Bamboo Slivering

#### **Brief Job Description**

The Machine Operator- Bamboo Slivering is required to operate slivering machine to cut bamboo sticks into usable slivers. The operator has to perform machine operation, maintenance and sharpening of cutting tools as per approved procedures. The candidate will be expected to work as per instructions given by the Supervisor.

#### **Personal Attributes**

Needs to be quality conscious, focused and physically active as well as capable to stand and work carefully for long hours. Should be able to work as per instructions given, be responsible for own outcomes and work in a team. The job requires the individual to have an eye for detail and steady hands.

#### **Applicable National Occupational Standards (NOS)**

#### **Compulsory NOS:**

- 1. FFS/N4109: Prepare to make slivers on slivering machine
- 2. FFS/N4110: Make slivers using manual slivering machine
- 3. FFS/N8401: Quality Control
- 4. FFS/N8601: Ensure health and safety at workplace
- 5. FFS/N8801: Work effectively with others

#### **Qualification Pack (QP) Parameters**

Sector	Furniture & Fittings
Sub-Sector	Bamboo and Cane Furniture
Occupation	Machining
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7523/7317.0300
Minimum Educational Qualification & Experience	5th Class
Minimum Level of Education for Training in School	







Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	15/03/2017
Next Review Date	30/06/2020
Deactivation Date	30/06/2020
NSQC Approval Date	22/08/2019
Version	1.0







### FFS/N4109: Prepare to make slivers on slivering machine

#### **Description**

Bamboo slivers are long, thin strips of bamboo. They are very pliable and can be used to make a wide range of products including furniture. This unit covers the key skills and knowledge required by the machine operator to prepare for slivering activities using manual slivering machine. This unit covers the key skills and knowledge required by the machine operator to cut wooden planks into usable pieces using Non CNC wood cutting machine

#### Scope

This unit/task covers the following:

- Machine operation understanding
- Plan work area

#### **Elements and Performance Criteria**

#### Machine operation understanding

To be competent, the user/individual on the job must be able to:

- **PC1.** obtain job instructions from responsible personneljob instruction: required size, thickness etc.
- **PC2.** interact with supervisor in order to understand the work requirement
- **PC3.** read and confirm that the given instructions and size specifications are complete and correct
- **PC4.** plan out an efficient sequence of work as per the job requirement
- **PC5.** ensure proper maintenance of the machine for safety and performance
- **PC6.** take all the necessary safety measures while handling the machine
- **PC7.** seek help from the supervisor to understand machine functions and its handling procedures
- **PC8.** check that the machine is in safe working condition and ready for use

#### Prepare work area

To be competent, the user/individual on the job must be able to:

- **PC9.** obtain appropriate machine and material suitable to carry out the given tasksMachine: manual slivering machine Material: e.g. pre-treated bamboo sticks to make slivers
- **PC10.** report on any shortage or defect of machine and materials to the concerned person before commencement of work
- **PC11.** conduct basic maintenance of machine regularly

#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** applicable legislation, standards, policies, and procedures followed in the company
- **KU2.** one's roles, responsibilities and expectations of the job
- **KU3.** the organizations rules, codes, guidelines and standards







- **KU4.** statutory responsibilities, organizational legislation and regulations
- **KU5.** contact person in case of queries on procedure or products
- **KU6.** method to handle tools and equipment safely and the health and safety implications of not doing so
- **KU7.** escalation matrix
- **KU8.** grievance handling as per organizational procedures
- **KU9.** relevant health and safety requirements applicable in the work place
- **KU10.** point of contact to obtain work related instructions, clarifications and support
- **KU11.** importance of following health, hygiene, safety
- **KU12.** importance of following quality standards
- KU13. organizational procedure and government policy of waste disposal
- **KU14.** work target and review mechanism in the organization
- **KU15.** general rules and regulations in a bamboo and cane sector
- KU16. different types of furniture made from in bamboo
- KU17. different type of bamboo and its use in furniture making
- KU18. various types of slivering machines and their uses
- **KU19.** correct operation of the machine controls in both hand and power modes
- **KU20.** various parts of machine
- **KU21.** steps to stop the machine in both normal and emergency situations, and the procedure for restarting after an emergency
- **KU22.** various relevant slivering techniques available in the industry
- **KU23.** cleaning and maintenance procedures of machines and its importance
- **KU24.** safe disposal of waste materials
- **KU25.** importance of using appropriate personal protective equipment compatible to the work and compliant to relevant occupational health and safety guidelinespersonal protective equipment: masks, safety glasses, head protection ear muffs, safety footwear, gloves, aprons etc.
- **KU26.** effects of clamping the work-piece in a chuck/work holding device, and how this can cause damage or distortion in the finished components
- **KU27.** importance of taking trial cuts and checking dimensional and size accuracy
- **KU28.** checks to be carried out on the components before removing them from the machine
- **KU29.** importance of leaving the machine in a safe condition on completion of activitiesSafe conditions: correctly isolated; cleaning the machine; removing and disposing of waste correctly, remove the plug safely etc.
- **KU30.** hazards associated with the cutting operations and how they can be minimizedHazards: revolving/moving parts of machinery; sparks/airborne particles; insecure components; burrs and sharp edges on components, etc.
- **KU31.** process of making bamboo sliver using slivering machine
- **KU32.** sorting and storing of bamboo slivers
- **KU33.** types of slivers based on quality and quantity measurements

#### Generic Skills (GS)







User/individual on the job needs to know how to:

GS1.	write ii	n Hindi	or local	language

- GS2. fill formats, logs and forms related to work in local language or Hindi/English
- GS3. document measurement appropriately whenever required
- **GS4.** read instructions from supervisor provided in local language or Hindi
- GS5. read and understand manufacturers instructions and job specifications
- **GS6.** interpret pictorial representations and written signs or instructions
- **GS7.** read and interpret numbers written in Hindi or local language
- GS8. understand safety symbols and basic warning signs wherever needed
- **GS9.** communicate effectively with team members, supervisors, managers etc.
- **GS10.** seek clarification on any unclear instructions in locally understood language
- **GS11.** take decisions of once own roles and responsibilities
- **GS12.** decide on material requirement for related to once work
- **GS13.** decide on to accept or reject a work piece on the basis of quality parameter
- **GS14.** plan and organize own work in a way that all activities are completed in time and as per specifications
- GS15. plan work as per job specification
- **GS16.** plan and organize cleaning and maintenance activities
- **GS17.** work and deliver output as per client requirement and satisfaction
- **GS18.** identify any defects in materials, tools and equipment and ways to resolve them
- **GS19.** determine timely correction of errors to minimize rejection of pieces or re-work







#### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Machine operation understanding	41	33	-	-
<b>PC1.</b> obtain job instructions from responsible personneljob instruction: required size, thickness etc.	4	4	-	-
<b>PC2.</b> interact with supervisor in order to understand the work requirement	5	5	-	-
<b>PC3.</b> read and confirm that the given instructions and size specifications are complete and correct	10	-	-	-
<b>PC4.</b> plan out an efficient sequence of work as per the job requirement	8	-	-	-
<b>PC5.</b> ensure proper maintenance of the machine for safety and performance	4	6	-	-
<b>PC6.</b> take all the necessary safety measures while handling the machine	-	8	-	-
<b>PC7.</b> seek help from the supervisor to understand machine functions and its handling procedures	10	-	-	-
<b>PC8.</b> check that the machine is in safe working condition and ready for use	-	10	-	-
Prepare work area	9	17	-	-
<b>PC9.</b> obtain appropriate machine and material suitable to carry out the given tasksMachine: manual slivering machine Material: e.g. pretreated bamboo sticks to make slivers	5	5	-	-
<b>PC10.</b> report on any shortage or defect of machine and materials to the concerned person before commencement of work	2	6	-	-
<b>PC11.</b> conduct basic maintenance of machine regularly	2	6	-	-
NOS Total	50	50	-	-







### **National Occupational Standards (NOS) Parameters**

NOS Code	FFS/N4109
NOS Name	Prepare to make slivers on slivering machine
Sector	Furniture & Fittings
Sub-Sector	Bamboo and Cane Furniture
Occupation	Machining
NSQF Level	3
Credits	NA
Version	1.0
Last Reviewed Date	05/05/2016
Next Review Date	05/05/2019
NSQC Clearance Date	







### FFS/N4110: Make slivers using manual slivering machine

#### **Description**

This unit covers the key skills and knowledge required by the machine operator to cut bamboo sticks into usable slivers using manual slivering machine. The operator has to perform machine operation as per approved procedures. The candidate will be expected to work as per instructions given and under supervision.

#### Scope

This unit/task covers the following:

- Operate manual slivering machine
- Working safely

#### **Elements and Performance Criteria**

#### Operate manual slivering machine

To be competent, the user/individual on the job must be able to:

- PC1. procure pre-treated bamboo sticks for making slivers from the store area
- PC2. inspect material received for any damage, termite, wetness etc.
- **PC3.** check the size requirement from the work sheet
- **PC4.** change the blade of the machine as per requirement
- **PC5.** hold the sticks in an appropriate way for making slivers in slivering machineappropriate way: hold the stick with both hands from one end, push the piece slowly in the direction of the blade, maintain asafe distance of hands from the machine blade
- **PC6.** carry out slivering operations in a way to minimize waste
- **PC7.** mount the work-piece safely and securely, in line with instructions
- **PC8.** set and adjust the machine i.e. blade, speeds and feeds, in line with instructions
- **PC9.** use the machine control liver or button safely and correctly, in line with operational procedures
- **PC10.** shut down the machine to a safe condition on completion of the cutting activitiessafe conditions: correctly isolated; cleaning the machine; removing and disposing of waste correctly etc.
- **PC11.** check the quality of output, using measuring equipment
- **PC12.** check the machined component for accuracy in dimensions, parallelism and surface texture as per job specifications
- **PC13.** ensure that the quality control procedures are used while operating the machine
- PC14. make different shapes of the wood pieces using different functions of the machine

#### Work Safely

To be competent, the user/individual on the job must be able to:

- **PC15.** read and understand machine functions and its handling procedures
- **PC16.** return all the used tools and materials safely to the appropriate personal







- **PC17.** work safely at all times, complying with health and safety legislation, regulations and other relevant guidelines
- **PC18.** maintain correct body posture while standing and working for long hours carrying heavy materials
- **PC19.** lift, carry or move heavy wooden logs from one place to another using approved safe working practices
- **PC20.** ensure that the work area is free of clutters to carry out machining work smoothly
- **PC21.** select and use appropriate personal protective equipment compatible to the work and compliant to relevant occupational health and safety guidelinesPersonal protective equipment: masks, safety glasses, head protection, earmuffs, safety footwear, gloves, aprons etc. PC22. follow electrical safety measures while working with machines

### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- **KU1.** applicable legislation, standards, policies, and procedures followed in the company
- **KU2.** one's roles, responsibilities and expectations of the job
- **KU3.** the organizations rules, codes, guidelines and standards
- **KU4.** statutory responsibilities, organizational legislation and regulations
- **KU5.** contact person in case of gueries on procedure or products
- **KU6.** method to handle tools and equipment safely and the health and safety implications of not doing so
- **KU7.** escalation matrix
- **KU8.** grievance handling as per organizational procedures
- **KU9.** relevant health and safety requirements applicable in the work place
- **KU10.** point of contact to obtain work related instructions, clarifications and support
- **KU11.** importance of following health, hygiene, safety
- **KU12.** importance of following quality standards
- **KU13.** organizational procedure and government policy of waste disposal
- **KU14.** work target and review mechanism in the organization
- **KU15.** general rules and regulations in a bamboo and cane sector
- **KU16.** different types of furniture made from in bamboo
- **KU17.** different type of bamboo and its use in furniture making
- **KU18.** various types of slivering machines and their uses
- **KU19.** correct operation of the machine controls in both hand and power modes
- **KU20.** various parts of machine
- **KU21.** steps to stop the machine in both normal and emergency situations, and the procedure for restarting after an emergency
- **KU22.** various relevant slivering techniques available in the industry
- **KU23.** cleaning and maintenance procedures of machines and its importance
- **KU24.** safe disposal of waste materials







- **KU25.** importance of using appropriate personal protective equipment compatible to the work and compliant to relevant occupational health and safety guidelinespersonal protective equipment: masks, safety glasses, head protection ear muffs, safety footwear, gloves, aprons etc.safe conditions: correctly isolated; cleaning the machine; removing and disposing of waste correctly, remove the plug safely etc.
- **KU26.** hazards associated with the cutting operations and how they can be minimizedHazards: revolving/moving parts of machinery; sparks/airborne particles; insecure components; burrs and sharp edges on components, etc.
- **KU27.** process of making bamboo sliver using slivering machine
- **KU28.** sorting and storing of bamboo slivers
- **KU29.** types of slivers based on quality and quantity measurements

#### **Generic Skills (GS)**

User/individual on the job needs to know how to:

- **GS1.** write in Hindi or local language
- GS2. fill formats, logs and forms related to work in local language or Hindi/English
- **GS3.** document measurement appropriately whenever required
- **GS4.** read instructions from supervisor provided in local language or Hindi
- **GS5.** read and understand manufacturers instructions and job specifications
- **GS6.** interpret pictorial representations and written signs or instructions
- **GS7.** read and interpret numbers written in Hindi or local language
- **GS8.** understand safety symbols and basic warning signs wherever needed
- **GS9.** communicate effectively with team members, supervisors, managers etc.
- **GS10.** seek clarification on any unclear instructions in locally understood language
- **GS11.** take decisions of once own roles and responsibilities
- **GS12.** decide on material requirement for related to once work
- **GS13.** decide on to accept or reject a work piece on the basis of quality parameter
- **GS14.** plan and organize own work in a way that all activities are completed in time and as per specifications
- **GS15.** plan work as per job specification
- **GS16.** plan and organize cleaning and maintenance activities
- **GS17.** work and deliver output as per client requirement
- **GS18.** identify any defects in materials, tools and equipment and ways to resolve them
- **GS19.** determine timely correction of errors to minimize rejection of pieces or re-work







#### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Operate manual slivering machine	18	48	-	-
<b>PC1.</b> procure pre-treated bamboo sticks for making slivers from the store area	1	3	-	-
<b>PC2.</b> inspect material received for any damage, termite, wetness etc.	1	4	-	-
<b>PC3.</b> check the size requirement from the work sheet	5	-	-	-
<b>PC4.</b> change the blade of the machine as per requirement	-	4	-	-
<b>PC5.</b> hold the sticks in an appropriate way for making slivers in slivering machineappropriate way: hold the stick with both hands from one end, push the piece slowly in the direction of the blade, maintain asafe distance of hands from the machine blade	-	5	-	-
<b>PC6.</b> carry out slivering operations in a way to minimize waste	2	3	-	-
<b>PC7.</b> mount the work-piece safely and securely, in line with instructions	2	3	-	-
<b>PC8.</b> set and adjust the machine i.e. blade, speeds and feeds, in line with instructions	2	3	-	-
<b>PC9.</b> use the machine control liver or button safely and correctly, in line with operational procedures	-	4	-	-
<b>PC10.</b> shut down the machine to a safe condition on completion of the cutting activitiessafe conditions: correctly isolated; cleaning the machine; removing and disposing of waste correctly etc.	-	4	-	-
<b>PC11.</b> check the quality of output, using measuring equipment	2	3	-	-
<b>PC12.</b> check the machined component for accuracy in dimensions, parallelism and surface texture as per job specifications	1	3	-	-







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC13.</b> ensure that the quality control procedures are used while operating the machine	2	3	-	-
<b>PC14.</b> make different shapes of the wood pieces using different functions of the machine	-	6	-	-
Work Safely	12	22	-	-
<b>PC15.</b> read and understand machine functions and its handling procedures	5	-	-	-
<b>PC16.</b> return all the used tools and materials safely to the appropriate personal	2	2	-	-
<b>PC17.</b> work safely at all times, complying with health and safety legislation, regulations and other relevant guidelines	2	2	-	-
<b>PC18.</b> maintain correct body posture while standing and working for long hours carrying heavy materials	2	2	-	-
<b>PC19.</b> lift, carry or move heavy wooden logs from one place to another using approved safe working practices	1	3	-	-
<b>PC20.</b> ensure that the work area is free of clutters to carry out machining work smoothly	-	4	-	-
protective equipment compatible to the work and compliant to relevant occupational health and safety guidelinesPersonal protective equipment: masks, safety glasses, head protection, earmuffs, safety footwear, gloves, aprons etc. PC22. follow electrical safety measures while working with machines	-	9	-	-
NOS Total	30	70	-	-







### **National Occupational Standards (NOS) Parameters**

NOS Code	FFS/N4110
NOS Name	Make slivers using manual slivering machine
Sector	Furniture & Fittings
Sub-Sector	Bamboo and Cane Furniture
Occupation	Machining
NSQF Level	3
Credits	NA
Version	1.0
Last Reviewed Date	05/05/2016
Next Review Date	05/05/2019
NSQC Clearance Date	







### FFS/N8401: Quality Control

#### **Description**

This unit covers the key skills and knowledge required to monitor the quality at different stages of furniture making.

#### Scope

This unit/task covers the following:

• Quality check at different stages of furniture making

#### **Elements and Performance Criteria**

#### Quality check at different stages of furniture making

To be competent, the user/individual on the job must be able to:

- **PC1.** check and use raw material as per the specified quality standards
- **PC2.** identify defects and communicate to the appropriate personnel when raw material do not confirm to quality standards
- **PC3.** check for any irregularities like splinters, protruding nails, cracks and unwanted cavities
- PC4. check for sliver sizes
- PC5. check for proper structural strength by applying load
- PC6. identify amendable or adjustable defects and modify them
- **PC7.** carry out quality checks at specified intervals according to instructions
- **PC8.** check and ensure that the final sliver is as per client requirement
- **PC9.** take appropriate action for fault rectification
- PC10. check for appropriate moisture content in bamboo for quality processing
- **PC11.** check the quality of bamboo slivers
- **PC12.** Clean and maintain the machine after completion of work
- **PC13.** Sharpen the blades/ cutting tools of the machine regularly

#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- 1. applicable legislation, standards, policies, and procedures followed in the company
- 2. once roles, responsibilities and expectations of the job
- **3.** the organizations rules, codes, guidelines and standards
- **4.** statutory responsibilities, organizational legislation and regulations
- 5. contact person in case of queries on procedure or products
- **6.** method to handle tools and equipment safely and the health and safety implications of not doing so







- 7. escalation matrix
- 8. grievance handling as per organizational procedures
- 9. relevant health and safety requirements applicable in the work place
- 10. point of contact to obtain work related instructions, clarifications and support
- **11.** importance of following health, hygiene, safety
- **12.** importance of following quality standards
- 13. organizational procedure and government policy of waste disposal
- 14. work target and review mechanism in the organization
- 15. general rules and regulations in a bamboo and cane sector
- **16.** different types of furniture made from bamboo.
- 17. different type of bamboo and its use in furniture making
- **18.** various types of slivering machines and their uses
- 19. correct operation of the machine controls in both hand and power modes
- **20.** various parts of machine
- **21.** steps to stop the machine in both normal and emergency situations, and the procedure for restarting after an emergency
- **22.** various relevant slivering techniques available in the industry
- 23. cleaning and maintenance procedures and its importance
- **24.** safe disposal of waste materials
- **25.** importance of using 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 Safe conditions: correctly isolated; cleaning the machine; removing and disposing of waste correctly, remove the plug safely etc.
- **26.** hazards associated with the cutting operations and how they can be minimized Hazards: revolving/moving parts of machinery; sparks/airborne particles; insecure components; burrs and sharp edges on components, etc.
- 27. process of making bamboo sliver using slivering machine
- 28. sorting and storing of bamboo slivers

#### **Generic Skills (GS)**

User/individual on the job needs to know how to:

- **1.** write in Hindi or local language
- 2. fill formats, logs and forms related to work in local language Hindi/English
- 3. document measurement appropriately whenever required
- **4.** read instructions from supervisor provided in local language or Hindi
- 5. read and understand manufacturers instructions and job specifications
- **6.** interpret pictorial representations and written signs or instructions
- 7. read and interpret numbers written in Hindi or local language
- 8. understand safety symbols and basic warning signs wherever needed
- **9.** Communicate effectively with team members, supervisors, managers etc.







- 10. seek clarification on any unclear instructions in locally understood language
- 11. take decisions of once own roles and responsibilities
- **12.** decide on material requirement for related to once work
- 13. decide on to accept or reject a work piece on the basis of quality parameter
- **14.** plan and organize own work in a way that all activities are completed in time and as per specifications
- **15.** plan word as per job specification
- **16.** plan and organize cleaning and maintenance activities
- 17. work and deliver output as per client requirement and satisfaction
- 18. Identify any defects in materials, tools and equipment and ways to resolve them
- 19. determine timely correction of errors to minimize rejection of pieces or rework







#### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Quality check at different stages of furniture making	25	75	-	-
<b>PC1.</b> check and use raw material as per the specified quality standards	4	5	-	-
<b>PC2.</b> identify defects and communicate to the appropriate personnel when raw material do not confirm to quality standards	4	5	-	-
<b>PC3.</b> check for any irregularities like splinters, protruding nails, cracks and unwanted cavities	3	6	-	-
PC4. check for sliver sizes	-	9	-	-
<b>PC5.</b> check for proper structural strength by applying load	-	9	-	-
<b>PC6.</b> identify amendable or adjustable defects and modify them	-	9	-	-
<b>PC7.</b> carry out quality checks at specified intervals according to instructions	-	9	-	-
<b>PC8.</b> check and ensure that the final sliver is as per client requirement	9	-	-	-
<b>PC9.</b> take appropriate action for fault rectification	-	4	-	-
<b>PC10.</b> check for appropriate moisture content in bamboo for quality processing	5	5	-	-
PC11. check the quality of bamboo slivers	-	4	-	-
PC12. Clean and maintain the machine after completion of work	-	5	-	-
PC13. Sharpen the blades/ cutting tools of the machine regularly	-	5	-	-
NOS Total	25	75	-	-







### **National Occupational Standards (NOS) Parameters**

NOS Code	FFS/N8401
NOS Name	Quality Control
Sector	Furniture & Fittings
Sub-Sector	Bamboo and Cane Furniture
Occupation	Production- Bamboo and Cane Furniture
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	17/10/2019
Next Review Date	17/10/2023
NSQC Clearance Date	22/08/2019







### FFS/N8601: Ensure health and safety at workplace

#### **Description**

This OS unit covers health, safety and security at the workplace. This includes procedures and practices that candidate need to follow to help maintain a healthy, safe and secure work environment.

#### Scope

This unit/task covers the following:

• Health and safety-Dealing with emergencies

#### **Elements and Performance Criteria**

#### Health and Safety

To be competent, the user/individual on the job must be able to:

- **PC1.** work safely at all times, complying with health and safety legislation, regulations and other relevant guidelines
- **PC2.** ensure that health and safety instructions applicable to the work place are being followed
- **PC3.** check the worksite for any possible health and safety hazards
- **PC4.** Follow manufacturers instructions and job specifications relating to safe use of materials specifically chemicals and power equipment
- **PC5.** ensure safe handling and disposal of waste and debris
- **PC6.** identify and report any hazards and potential risks/ threats to supervisors or other authorized personnelHazards: sharp edged tools, hazardous surfaces, physical hazards, electrical hazards, health hazards from chemicals and other such toxic material etc.
- **PC7.** undertake first aid activities in case of any accident, if required and asked to do so
- **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.
- **PC9.** maintain correct body posture while standing and working for long hours and carrying heavy materials
- **PC10.** lift, carry or move heavy wooden furniture and accessories from one place to another using approved safe working practices
- **PC11.** handle all required tools, machines, materials & equipment safely
- **PC12.** adhere to relevant occupational safety policies while handling sharp tools to make and install furniture and fittings
- PC13. take safety measures while handling glass, heavy wood, materials, chemicals etc.
- **PC14.** apply good housekeeping practices at all timesGood Housekeeping Practices: clean/tidy work areas, removal/disposal of waste products, protect surfaces
- PC15. report accident/incident report to authorized personal
- **PC16.** perform basic safety checks before operation of all machines, tools and electrical equipment
- PC17. follow recommended material handling procedure to control damage and personal injury







#### **PC18.** follow safe working practices at all times

#### Dealing with Emergencies

To be competent, the user/individual on the job must be able to:

- **PC19.** follow appropriate procedure in case a of fire emergency
- **PC20.** follow electrical safety measures while working with electrically powered tools & equipment
- PC21. follow agreed work location procedures in the event of an emergency or an accident
- **PC22.** follow emergency and evacuation procedures in case of accidents, fires, natural calamities
- **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)
- **PC24.** Comply with restrictions imposed on harmful chemicals inside work area during working hours
- **PC25.** correctly demonstrate rescue techniques applied during fire hazard
- **PC26.** demonstrate good housekeeping in order to prevent fire hazards
- PC27. demonstrate the correct use of a fire extinguisher
- PC28. demonstrate how to free a person from electrocution
- PC29. respond promptly and appropriately to an accident situation or medical emergency
- **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
- **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 andgases, 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)
- **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

#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- 1. organizational procedures for safe handling of equipment and machine operations
- 2. how to respond to emergency situation in line with organisational procedures
- 3. reporting protocol and documentation required
- **4.** whom to contact in case of an emergency
- **5.** Where to get the list of contact in case of an emergency in the organization
- **6.** common health and safety hazards in a work environment and related precautions
- 7. organizational procedures for safe handling of tools and equipment
- **8.** how to respond to an emergency situation







- potential risks and threats
- 10. organizational reporting protocol
- **11.** health and safety practices at work place
- 12. potential hazards and risks which may be present at furniture and fittings related workplace
- 13. storage and handling of hazardous substances
- 14. importance of good housekeeping
- **15.** procedure to be followed for safe disposal of waste
- **16.** safe working practices in a furniture and fittings related workplace
- 17. how to deal with an accident which involve human life
- 18. different types of personal protective equipment and their use
- 19. how to follow safe working practices while at work
- **20.** different risks associated with the use of electrical equipment
- 21. preventative and remedial actions to be taken in the case of exposure to toxic materials, Exposure: ingested, contact with skin, inhaledPreventative action: ventilation, masks, protective clothing/ equipment); Remedial action: immediate first aid, report to supervisorToxic materials: solvents, flux, lead
- 22. importance of using protective clothing/equipment while working
- 23. Various causes of fire
- **24.** techniques of using the different fire extinguishers
- 25. different type of fire extinguishers and their use
- **26.** various types of safety signs and what they mean
- **27.** Appropriate basic first aid treatment relevant to the condition eg. shock, electrical shock, bleeding, breaks to bones, minor burns, resuscitation, poisoning, eye injuries, etc.
- 28. importance of safe lifting practices and correct body postures
- **29.** list of names (and job titles if applicable), and the contact details of all the people responsible for health and safety in a workplace

#### **Generic Skills (GS)**

User/individual on the job needs to know how to:

- 1. write in Hindi or local language
- 2. fill logs, forms and formats in local language or Hindi for recording quantity and quality of work figures, defects and other related information, etc. whenever needed
- 3. document measurement appropriately whenever required
- 4. read all organizational and equipment related health and safety manuals and documents
- **5.** read and comprehend safety related documents
- **6.** communicate effectively with team members, supervisors, managers etc
- 7. seek clarification on any unclear instructions in locally understood language
- 8. take decisions of once own roles and responsibilities
- **9.** decide on material requirement for related to once work
- 10. decide on to accept or reject a work piece on the basis of quality parameter







- **11.** plan and organize own work in a way that all activities are completed in time and as per specifications
- 12. plan word as per job specification
- 13. plan and organize cleaning and maintenance activities
- 14. work and deliver output as per client requirement and satisfaction
- 15. identify any defects in materials, tools and equipment and ways to resolve them
- 16. determine timely correction of errors to minimize rejection of pieces or rework
- **17.** analyse the situation and take appropriate actions while dealing with team members
- **18.** analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently







#### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Health and Safety	17	39	-	-
<b>PC1.</b> work safely at all times, complying with health and safety legislation, regulations and other relevant guidelines	2	1	-	-
<b>PC2.</b> ensure that health and safety instructions applicable to the work place are being followed	1	2	-	-
<b>PC3.</b> check the worksite for any possible health and safety hazards	1	2	-	-
<b>PC4.</b> Follow manufacturers instructions and job specifications relating to safe use of materials specifically chemicals and power equipment	1	2	-	-
<b>PC5.</b> ensure safe handling and disposal of waste and debris	-	3	-	-
<b>PC6.</b> identify and report any hazards and potential risks/ threats to supervisors or other authorized personnelHazards: sharp edged tools, hazardous surfaces, physical hazards, electrical hazards, health hazards from chemicals and other such toxic material etc.	1	2	-	-
<b>PC7.</b> undertake first aid activities in case of any accident, if required and asked to do so	-	3	-	-
<b>PC8.</b> 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	-	-
<b>PC9.</b> maintain correct body posture while standing and working for long hours and carrying heavy materials	-	3	-	-
<b>PC10.</b> lift, carry or move heavy wooden furniture and accessories from one place to another using approved safe working practices	2	2	-	-







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC11.</b> handle all required tools, machines, materials & equipment safely	2	2	-	-
<b>PC12.</b> adhere to relevant occupational safety policies while handling sharp tools to make and install furniture and fittings	-	3	-	-
<b>PC13.</b> take safety measures while handling glass, heavy wood, materials, chemicals etc.	-	3	-	-
<b>PC14.</b> apply good housekeeping practices at all timesGood Housekeeping Practices: clean/tidy work areas, removal/disposal of waste products, protect surfaces	2	1	-	-
PC15. report accident/incident report to authorized personal	1	2	-	-
<b>PC16.</b> perform basic safety checks before operation of all machines, tools and electrical equipment	2	1	-	-
<b>PC17.</b> follow recommended material handling procedure to control damage and personal injury	1	2	-	-
PC18. follow safe working practices at all times	1	2	-	-
Dealing with Emergencies	13	31	-	-
<b>PC19.</b> follow appropriate procedure in case a of fire emergency	1	2	-	-
<b>PC20.</b> follow electrical safety measures while working with electrically powered tools & equipment	2	2	-	-
<b>PC21.</b> follow agreed work location procedures in the event of an emergency or an accident	1	2	-	-
<b>PC22.</b> follow emergency and evacuation procedures in case of accidents, fires, natural calamities	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)	1	3	-	-
PC24. Comply with restrictions imposed on harmful chemicals inside work area during working hours	-	3	-	-







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC25.</b> correctly demonstrate rescue techniques applied during fire hazard	-	3	-	-
<b>PC26.</b> demonstrate good housekeeping in order to prevent fire hazards	-	3	-	-
<b>PC27.</b> demonstrate the correct use of a fire extinguisher	2	1	-	-
PC28. demonstrate how to free a person from electrocution	1	2	-	-
<b>PC29.</b> respond promptly and appropriately to an accident situation or medical emergency	-	3	-	-
<b>PC30.</b> 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	-	-
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 andgases, 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)	1	2	-	-
<b>PC32.</b> 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	-	-	-
NOS Total	30	70	-	-







### **National Occupational Standards (NOS) Parameters**

NOS Code	FFS/N8601
NOS Name	Ensure health and safety at workplace
Sector	Furniture & Fittings
Sub-Sector	Generic
Occupation	Generic
NSQF Level	3
Credits	NA
Version	1.0
Last Reviewed Date	17/10/2019
Next Review Date	17/10/2023
NSQC Clearance Date	22/08/2019







### FFS/N8801: Work effectively with others

#### **Description**

This OS unit is about communicating and coordinating with team members including subordinates and superiors.

#### Scope

This unit/task covers the following:

- Interaction with seniors
- Work effectively

#### **Elements and Performance Criteria**

#### Interaction with Seniors

To be competent, the user/individual on the job must be able to:

- **PC1.** seek assistance from supervisor or any such appropriate authority as and when required
- **PC2.** ask questions and seek clarifications on work tasks whenever requiredndling procedures
- **PC3.** seek and obtain clarifications on policies and procedures, from the supervisor or other authorized personnel
- **PC4.** identify and report any possible deviations to appropriate authority
- **PC5.** address the problems effectively and report if required to immediate supervisor appropriately
- **PC6.** Receive instructions clearly from superiors and respond effectively on the same
- **PC7.** follow escalation matrix in case of any grievance
- **PC8.** accurately receive information and instructions from the supervisor related to one's work

#### Work effectively

To be competent, the user/individual on the job must be able to:

- **PC9.** coordinate and cooperate with colleagues to achieve work objectives
- **PC10.** display courteous behaviour at all times
- **PC11.** respond politely to customer gueries and other team members
- **PC12.** follow work place dress code
- **PC13.** keep work area in a tidy and organized state
- **PC14.** adhere to time lines and quality standards
- **PC15.** follow organizational policies and procedures
- **PC16.** share information with team wherever and whenever required to enhance quality and productivity at work place
- **PC17.** work together with co-workers in a synchronized manner
- PC18. communicate with others clearly, at a pace and in a manner that helps them to understand
- **PC19.** show respect to other and their work
- **PC20.** display active listening skills while interacting with others at work







**PC21.** Demonstrate responsible and disciplined behaviors at the workplace disciplined behaviors: e.g. punctuality; completing tasks as per given time and standards; not gossiping and idling time; eliminating waste, honesty, etc.

#### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- 1. legislation, standards, policies, and procedures followed in the company relevant to own employment and performance conditions
- 2. reporting structure, inter-dependent functions, lines and procedures in the work area
- 3. relevant people and their responsibilities within the work area
- **4.** escalation matrix and procedures for reporting work and employment relate issue clarifications and support
- 5. importance of working effectively with others to achieve organizations goals
- 6. importance of effective communication and establishing good working relationships with other
- 7. responsibilities and objectives of the role
- 8. own roles and responsibilities
- **9.** principle of furniture and fittings manufacturing and installation
- 10. importance of having correct understanding of work task and objective
- 11. how to keep work area clean and tidy and its importance
- 12. applicable quality standards for assigned work task and objective
- **13.** Reporting procedure in case of deviations
- 14. importance and need of supporting co-workers facing problems for smooth functioning of work
- different type of people that one is required to communicate and coordinate within the organization
- **16.** various components of communication cycle
- 17. importance of active listening
- **18.** importance of discipline and ethics for professional success
- 19. what constitutes disciplined behavior for a working professional
- 20. expressing and addressing grievances appropriately and effectively
- **21.** importance and ways of managing interpersonal conflict effectively

#### **Generic Skills (GS)**

User/individual on the job needs to know how to:

- 1. write in Hindi or local language
- 2. fill formats, logs and forms related to work in local language or Hindi/English
- 3. document measurement appropriately whenever required
- **4.** read instructions from supervisor provided in local language or Hindi
- 5. read and understand manufacturers instructions and job specifications
- 6. interpret pictorial representations and written signs or instructions







- 7. read and interpret numbers written in Hindi or local language
- 8. understand safety symbols and basic warning signs wherever needed
- 9. communicate effectively with team members, supervisors, managers etc.
- 10. seek clarification on any unclear instructions in locally understood language
- 11. take decisions of once own roles and responsibilities
- **12.** decide on material requirement for related to once work
- 13. decide on to accept or reject a work piece on the basis of quality parameter
- **14.** Plan and organize own work in a way that all activities are completed in time and as per specifications
- **15.** plan word as per job specification
- 16. plan and organize cleaning and maintenance activities
- 17. work and deliver output as per client requirement and satisfaction
- 18. identify any defects in materials, tools and equipment and ways to resolve them
- 19. determine timely correction of errors to minimize rejection of pieces or rework
- 20. analyse the situation and take appropriate actions while dealing with team members
- **21.** analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently







#### **Assessment Criteria**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Interaction with Seniors	18	15	-	-
<b>PC1.</b> seek assistance from supervisor or any such appropriate authority as and when required	1	2	-	-
<b>PC2.</b> ask questions and seek clarifications on work tasks whenever requiredndling procedures	1	2	-	-
<b>PC3.</b> seek and obtain clarifications on policies and procedures, from the supervisor or other authorized personnel	5	-	-	-
<b>PC4.</b> identify and report any possible deviations to appropriate authority	1	2	-	-
<b>PC5.</b> address the problems effectively and report if required to immediate supervisor appropriately	2	3	-	-
<b>PC6.</b> Receive instructions clearly from superiors and respond effectively on the same	1	2	-	-
<b>PC7.</b> follow escalation matrix in case of any grievance	4	2	-	-
<b>PC8.</b> accurately receive information and instructions from the supervisor related to one's work	3	2	-	-
Work effectively	12	55	-	-
<b>PC9.</b> coordinate and cooperate with colleagues to achieve work objectives	-	5	-	-
PC10. display courteous behaviour at all times	-	5	-	-
<b>PC11.</b> respond politely to customer queries and other team members	1	4	-	-
PC12. follow work place dress code	<del>-</del>	5	-	-
PC13. keep work area in a tidy and organized state	-	5	-	-
PC14. adhere to time lines and quality standards	2	3	-	-







Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC15.</b> follow organizational policies and procedures	4	-	-	-
<b>PC16.</b> share information with team wherever and whenever required to enhance quality and productivity at work place	2	3	-	-
<b>PC17.</b> work together with co-workers in a synchronized manner	-	6	-	-
<b>PC18.</b> communicate with others clearly, at a pace and in a manner that helps them to understand	3	3	-	-
PC19. show respect to other and their work	-	5	-	-
<b>PC20.</b> display active listening skills while interacting with others at work	-	5	-	-
<b>PC21.</b> Demonstrate responsible and disciplined behaviors at the workplace disciplined behaviors: e.g. punctuality; completing tasks as per given time and standards; not gossiping and idling time; eliminating waste, honesty, etc.	-	6	-	-
NOS Total	30	70	-	-







### **National Occupational Standards (NOS) Parameters**

NOS Code	FFS/N8801
NOS Name	Work effectively with others
Sector	Furniture & Fittings
Sub-Sector	Generic
Occupation	Generic
NSQF Level	3
Credits	NA
Version	1.0
Last Reviewed Date	17/10/2019
Next Review Date	17/10/2023
NSQC Clearance Date	22/08/2019







### Assessment Guidelines and Assessment Weightage

#### **Assessment Guidelines**

- 1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Element/ 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 Element/ PC.
- 2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
- 3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
- 4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
- 5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
- 6. To pass the Qualification Pack assessment, every trainee should score the Recommended Pass % aggregate for the QP.
- 7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

**Recommended Pass %:50** 

#### **Assessment Weightage**

#### Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
FFS/N4109.Prepare to make slivers on slivering machine	50	50	-	-	100	25
FFS/N4110.Make slivers using manual slivering machine	30	70	-	-	100	30
FFS/N8401.Quality Control	25	75	-	-	100	20
FFS/N8601.Ensure health and safety at workplace	30	70	-	-	100	15







National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
FFS/N8801.Work effectively with others	30	70	-	-	100	10
Total	165	335	-	-	500	100







### **Acronyms**

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training







### **Glossary**

Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
NOS are occupational standards which apply uniquely in the Indian context.
QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit title gives a clear overall statement about what the incumbent should be able to do.
Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.







Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.