

# Model Curriculum

## Abrasion and Grinding Machine Operator (Glassware)

**SECTOR: HANDICRAFTS AND CARPET**  
**SUB-SECTOR: GLASSWARE**  
**OCCUPATION: FINISHING**  
**REF ID: HCS/Q2303, V1.0**  
**NSQF LEVEL: 4**



**Certificate**  
**CURRICULUM COMPLIANCE TO**  
**QUALIFICATION PACK – NATIONAL OCCUPATIONAL**  
**STANDARDS**

is hereby issued by the

**HANDICRAFTS AND CARPET SECTOR SKILL COUNCIL**

for the

**MODEL CURRICULUM**

Complying to National Occupational Standards of

Job Role/Qualification Pack: 'Abrasion and Grinding Machine Operator (Carpets)' No. ('HCS/Q2303, V1.0 NSQF Level 4')

Date of Issuance: 27/05/2015

Valid up to: 27/05/2023

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



Authorized Signatory

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# Abrasion and Grinding Machine Operator (Glassware)

## CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Abrasion and Grinding Machine Operator (Glassware)”, in the “Handicrafts and Carpet” Sector/Industry and aims at building the following key competencies amongst the learner

<b>Program Name</b>	<b>Abrasion and Grinding Machine Operator (Glassware)</b>		
<b>Qualification Pack Name &amp; Reference ID.</b>	HCS/Q2303, v1.0		
<b>Version No.</b>	1.0	<b>Version Update Date</b>	12/07/2019
<b>Pre-requisites to Training</b>	5th pass (Primary Education)		
<b>Training Outcomes</b>	<p><b>After completing this programme, participants will be able to:</b></p> <ul style="list-style-type: none"> <li>• Interpret the job requirements related to quality parameters and types of finishing operations required on glass work.</li> <li>• Perform visual quality inspection process based on standard quality parameters.</li> <li>• Examine the different finishing parameters performed during manufacturing of glass based on standard operating procedures.</li> <li>• Carry out maintenance of work area and tools.</li> <li>• List the basic business management techniques required at workplace.</li> </ul>		





	<p><b>Corresponding NOS Code</b> HCS/N2304</p>	<p>to achieve correct dressing an abrasive wheels for smooth handling.</p> <ul style="list-style-type: none"> <li>• Discuss the importance of holding the glass in an appropriate position for smoothen the rough edges of glass by abrasive wheel.</li> <li>• Demonstrate the abrasion operation on the glass based on the standard operating parameters wheel speed, work speed, condition of grinding machine and the area of contact between work and wheel.</li> <li>• Examine the grinded product based on standard operating procedures in order to achieve the finished product based on job specification.</li> </ul>	
6	<p><b>Achieve productivity and quality standards</b></p> <p><b>Theory Duration</b> (hh:mm) 05:00</p> <p><b>Practical Duration</b> (hh:mm) 10:00</p> <p><b>Corresponding NOS Code</b> HCS/N2304</p>	<ul style="list-style-type: none"> <li>• Perform the standard quality procedures while performing abrasion operation in order to ensure zero damage to the product is achieved.</li> <li>• Apply standard operating procedure in order to achieve desired shelf life of wheel.</li> <li>• Examine the finished product in order to ensure appropriate smooth finish as per the job specification.</li> <li>• Demonstrate the standard organizational procedures in order to achieve periodical target of production.</li> <li>• Demonstrate the use of PPE while examination, handling and storage of abrasive wheel in order to minimize hazards ad risks at the workplace.</li> </ul>	
7	<p><b>Coordinate with colleagues and work as a team</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p> <p><b>Practical Duration</b> (hh:mm) 25:00</p>	<ul style="list-style-type: none"> <li>• Explain the importance of obtaining clarity on daily schedules and timely delivery at workplace</li> <li>• Explain the importance of obtaining clarity on daily schedules and timely delivery at workplace.</li> <li>• Describe the different types of situations that lead to conflicts/ tensions within teams.</li> <li>• Identify the ways of reducing/ eliminating conflicts/ tensions at workplace through proper communication.</li> <li>• Describe the importance of implementing innovations/ new ideas and processes within organizational standards.</li> <li>• Establish medium of communication with supervisor in order to develop clear understanding on organizational standards and procedures.</li> <li>• Apply standard parameters to be followed while maintaining records of work performed on the glass.</li> </ul>	

	<p><b>Corresponding NOS Code</b> HCS/N9901</p>	<ul style="list-style-type: none"> <li>Prepare a sample format /template to collect information during inspection based on surface finish, trimmed edges, filleted surfaces, smooth surface and material storage.</li> </ul>	
8	<p><b>Maintain safe work environment</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p> <p><b>Practical Duration</b> (hh:mm) 20:00</p> <p><b>Corresponding NOS Code</b> HCS/N9902</p>	<ul style="list-style-type: none"> <li>Identify the parameters to be followed while handling clean material, tool and equipment at workplace.</li> <li>Discuss the importance of maintaining cleanliness and hazard free workplace.</li> <li>Prepare reports of unsafe equipment/tools and dangerous occurrences using email, observation sheets and memos.</li> <li>Describe the importance of disposing waste in the designated area at workplace.</li> <li>Explain the importance of examine tools and machines in regular working cycles.</li> <li>List the important preventive measures in order to preserve the resources at workplace.</li> </ul>	
9	<p><b>Maintain personal health</b></p> <p><b>Theory Duration</b> (hh:mm) 10:00</p> <p><b>Practical Duration</b> (hh:mm) 20:00</p> <p><b>Corresponding NOS Code</b> HCS/N9903</p>	<ul style="list-style-type: none"> <li>Describe the health and safety precautions to be taken while working in glassware industry.</li> <li>Demonstrate the use of personal protective equipment.</li> <li>Describe the safety measures to be followed while handling and moving waste and debris.</li> <li>Discuss the importance of executing mock drills/evacuation procedures based on organizational standards and procedures.</li> <li>Demonstrate the standard procedures of first aid, fire-fighting and emergency response trainings.</li> <li>Discuss the importance of identifying different causes for potential risks and threats.</li> <li>Prepare a sample report on hazards and potential risks/ threats at a carpet production unit.</li> </ul>	<p>First Kid Kit, Fire Extinguisher and PPE</p>



SNo.	Module	Key Learning Outcomes	Equipment Required
	<b>COMPULSORY NOS:</b> <b>Total Duration</b> <b>225:00</b> <b>Theory Duration</b> <b>75:00</b> <b>Practical Duration</b> <b>150:00</b>	<b>Unique Equipment Required:</b> Abrasive machines, hand grinders, cutting and grinding wheels, flap disc, hammer, personal protective equipment, safety boots, eye glass, face mask, hand gloves  <b>Classroom Aids:</b> White Board, Marker Pen, Computer, Projector	

## Grand Total Course Duration: 225 hours, 0 minutes

(This syllabus/curriculum has been approved by Handicrafts and Carpet Sector Skill Council)

## Trainer Prerequisites for Job role: “Abrasion and Grinding Machine Operator (Glassware)” mapped to Qualification Pack: “HCS/Q2303, v1.0”

Sr. No.	Area	Details
1	<b>Description</b>	The individual at work is responsible for making the surface of the raw product smooth for further processing. The individual understands the different kinds of abrasion machines used in glass manufacturing and how to operate the abrasion machine. The individual understands the different kinds of grinders used in glass manufacturing and how to operate the grinding machine.
2	<b>Personal Attributes</b>	The job requires the individual to have: ability to work in sitting position for a long time, work in high decibel noise environment, steady hand and hand eye coordination.
3	<b>Minimum Educational Qualifications</b>	5 <sup>th</sup> Primary Education
4a	<b>Domain Certification</b>	Certified for Job Role: “ <u>Abrasion and Grinding Machine Operator (Glassware)</u> ” mapped to QP: “ <u>HCS/Q2303, v1.0</u> ”. Minimum accepted score is 80%
4b	<b>Platform Certification</b>	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “ <u>MEP/Q2601</u> ”. Minimum accepted % as per respective SSC guidelines is 80%.
5	<b>Experience</b>	<ul style="list-style-type: none"> <li>• Total 3 Years’ experience,</li> <li>• 2 Years of sector-specific experience,</li> <li>• Min. 1 year of teaching experience</li> </ul>

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## Annexure: Assessment Criteria

“For the Assessment Criteria, please refer to the QP PDF.”