

## QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR GEMS & JEWELLERY INDUSTRY



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### What are Occupational Standards(OS)?

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

Contact Us:  
GJSCI, Mumbai

E-mail: [coo@gjsi.org](mailto:coo@gjsi.org)



### Introduction

## Qualifications Pack- Auto Bruter

**SECTOR:** GEMS & JEWELLERY

**SUB-SECTOR:** Diamond processing

**OCCUPATION:** Bruting and coning

**REFERENCE ID:** G&J/Q4502

**ALIGNED TO:** NCO-2004/ NIL

**Auto Bruter:** Also known as Bruter or Coner, the auto bruter provides round girdle and cone shape to the sawed rough diamond.

**Brief Job Description:** The individual works with bruting machine and another diamond or wheel (rotating in opposite direction to the diamond being bruted) to give the rough diamond round and cone shapes. A bruter must be careful: so that excess bruting does not cause too much stone loss or sub-optimal bruting causes the girdle to disappear at a later stage of processing.

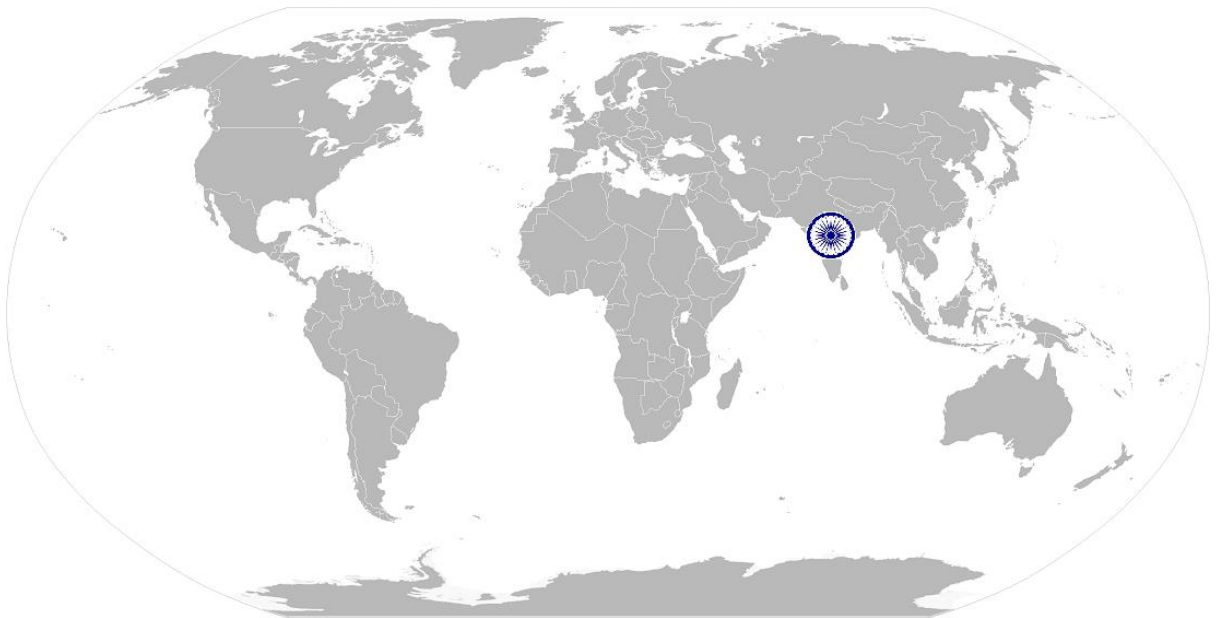
**Personal Attributes:** The job requires the individual to have: attention to details; good eyesight; steady hands; ability to work in a process driven team; ability to work for long hours in sitting position in front of a screen; high level of concentration; and a lot of patience.

Job Details

<b>Qualifications Pack Code</b>	<b>G&amp;J/Q4502</b>		
<b>Job Role</b>	<b>Auto Bruter</b>		
<b>Credits(NVEQF/NVQF/NSQF)</b>	<b>TBD</b>	<b>Version number</b>	<b>1.0</b>
<b>Sector</b>	<b>Gems &amp; Jewellery</b>	<b>Drafted on</b>	<b>31/05/13</b>
<b>Sub-sector</b>	<b>Diamond Processing</b>	<b>Last reviewed on</b>	<b>30/07/13</b>
<b>Occupation</b>	<b>Bruting and Coning</b>	<b>Next review date</b>	<b>15/07/15</b>

<b>Job Role</b>	<b>Auto Bruter</b> Also known as 'Bruter' or 'Coner'
<b>Role Description</b>	Creating the round girdle of the diamond and giving a conical shape to the pavilion and crown area, maximizing yield while maintaining its dimensions as per plan, using the bruting machine
<b>NVEQF/NVQF level</b>	3
<b>Minimum Educational Qualifications</b>	Preferably 10 <sup>th</sup> Standard Passed
<b>Maximum Educational Qualifications</b>	
<b>Training</b>	Not Applicable
<b>Experience</b>	Not Applicable
<b>Applicable National Occupational Standards (NOS)</b>	<p><b>Compulsory:</b></p> <ol style="list-style-type: none"> <li><a href="#">G&amp;J/N4501 Dop the diamond for bruting</a></li> <li><a href="#">G&amp;J/N4504 Brut and cone the diamond</a></li> <li><a href="#">G&amp;J/N9930 Maintain IPR</a></li> <li><a href="#">G&amp;J/N9931 Coordinate with team and superiors</a></li> <li><a href="#">G&amp;J/N9933 Maintain safety</a></li> </ol> <p><b>Optional:</b> Not applicable</p>
<b>Performance Criteria</b>	As described in the relevant OS units

# National Occupational Standard



## Overview

This unit is a key pre-bruting stage in diamond processing. Sawed/cleaved roughs are placed onto dop pots as per size, fixed using an adhesive, and aligned for the purpose of bruting and coning.

**G&J/N4501**

**Dop the diamond for bruting**

National Occupational Standard

<b>Unit Code</b>	<b>G&amp;J/N4501</b>
<b>Unit Title (Task)</b>	<b>Dop the diamond for bruting</b>
<b>Description</b>	This OS unit is about fixing sawed rough diamond in the pot with accurate alignment
<b>Scope</b>	<p>This unit/task covers the following:</p> <p>Collect the rough diamond packet from the supervisor</p> <ul style="list-style-type: none"> <li>match the specifications of the roughs such as shape, size and quantity, as per those mentioned on the packet issued</li> </ul> <p>Fix the rough diamond on the dop</p> <ul style="list-style-type: none"> <li>read the markings (if any) in terms of the diameter size, shape</li> <li>select the dop type for the size of the rough to be brutted</li> <li>identify the type of mode of operation such as brutting only, brutting and coning pavilion, coning the crown</li> <li>identify the type of machine to use such as semi-automatic, fully automatic, twin-set, three-in-one set</li> <li>fix the rough on the dop using adhesives as prescribed by the company such as white cement, glue, or as recommended by the machine manufacturer</li> <li>place the dop in the oven for the adhesive to dry up and the rough to be securely fixed</li> <li>check the levelling and alignment of the rough using the alignment screen or by an eye glass</li> </ul> <p>Report problems about:</p> <ul style="list-style-type: none"> <li>mismatch in rough issued and received</li> <li>unclear marking</li> <li>defective or inadequate number of dops/ pots</li> <li>inadequate quantity of consumable such as adhesives</li> <li>machine break down or wear and tear of tools, etc.</li> </ul>
<b>Performance Criteria(PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Setting rough in the holder</b>	To be competent, the user/individual on the job must be able to: PC1. accurately and securely fix rough as per the brutting required PC2. accurately align and level the rough on the dop
<b>Productivity</b>	To be competent, the user/individual on the job must be able to: PC3. achieve the productivity in terms of carats or number of pieces as set by the company PC4. timely delivery for further processing
<b>Controlling defects</b>	To be competent, the user/individual on the job must be able to: PC5. ensure no damage to the rough during fixing process

**G&J/N4501**

**Dop the diamond for bruting**

Knowledge and Understanding (K)	
<b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)	The individual on the job needs to know and understand: KA1. company's policies on: acceptable limits of weight loss; incentives; delivery standards; safety practices and hazards; security and performance measurement KA2. work flow involved in company's diamond processing process KA3. importance of the individual's role in the workflow KA4. reporting structure KA5. issue return procedures followed by the company
<b>B. Technical Knowledge</b>	The user/individual on the job needs to know and understand: KB1. shape, cut, clarity, carat, and physical characteristics of the diamond to be fixed KB2. accurate fixing of roughs on dop or holder as per planned brut KB3. heat sensitivity of different types of adhesives such as temperature, duration KB4. potential work hazards KB5. use of magnifying camera with screen or an eye glass in order to check alignment
Skills (S) [Optional]	
<b>A. Core Skills/ Generic Skills</b>	<b>Basic reading and writing skills</b>
	The user/individual on the job needs to know and understand how: SA1. to read descriptions on the diamond packets/ bags SA2. to document work done for status and performance appraisal
	<b>Communication skills</b>
	The user/individual on the job needs to know and understand how: SA3. to discuss task, schedules, and work-loads with co-workers and supervisors SA4. to understand instructions and report problems
	<b>Teamwork and multitasking</b>
	The user/individual on the job needs to know and understand how: SA5. to share work load as required SA6. to assist others who require help
<b>B. Professional Skills</b>	<b>Understanding the marking</b>
	The user/individual on the job needs to know and understand how: SB1. the rough needs to be fixed for a particular bruting and coning requirement
	<b>Using tools and machines</b>
	The user/individual on the job needs to know and understand how: SB2. to use different types of adhesives in different cases SB3. to use a heating oven, magnifying camera and an eye glass SB4. to maintain tools and machines used SB5. to work in a safe environment, i.e., without injuries
	<b>Reducing loss</b>

**G&J/N4501**

**Dop the diamond for bruting**

	<p>The user/individual on the job needs to know and understand how:</p> <p>SB6. to handle diamonds with care</p> <p>SB7. to minimize damage or loss of any diamond during the doping process</p> <p>SB8. to suggest improvements in order to reduce loss</p>
	<p><b>Problem solving</b></p>
	<p>The user/individual on the job needs to know and understand how:</p> <p>SB9. to identify the factors such as quality of the glue/white cement, tools and machines used, that contribute to the fixing of roughs</p> <p>SB10. to identify immediate or temporary solutions to avoid delays</p>
	<p><b>Reflective thinking</b></p>
	<p>The user/individual on the job needs to know and understand how:</p> <p>SB11. to plan the work to improve productivity and quality of setting the rough</p>
	<p><b>Critical thinking</b></p>
<p>The user/individual on the job needs to know and understand how:</p> <p>SB12. to spot process disruptions and delays</p>	

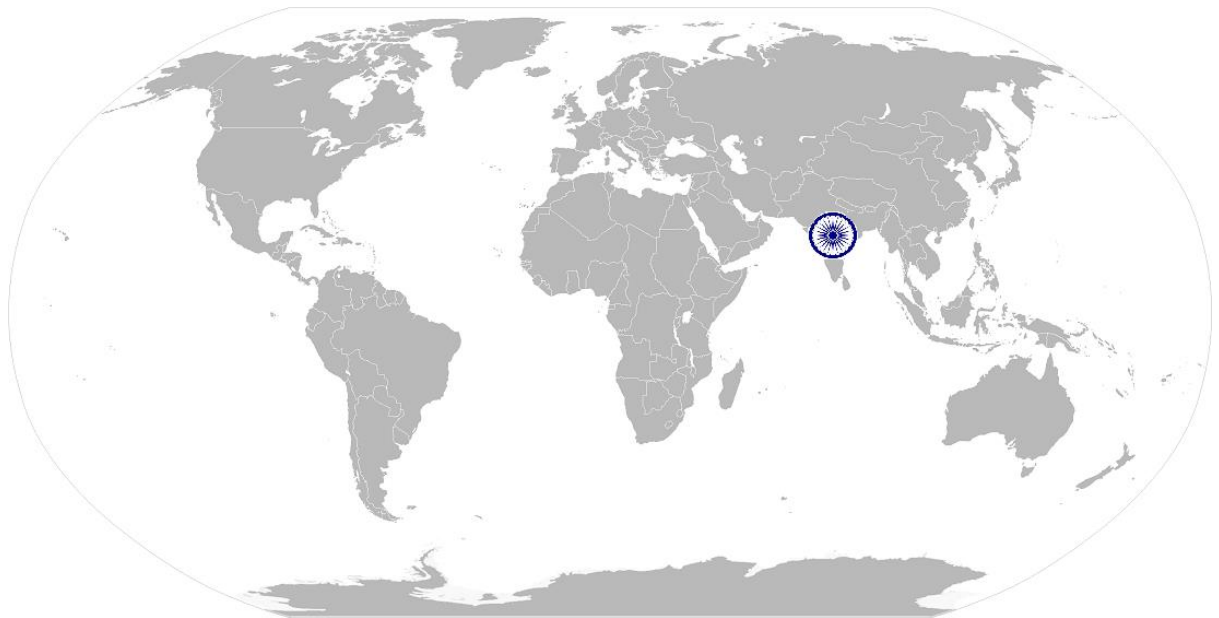
**G&J/N4501**

**Dop the diamond for bruting**

**NOS Version Control**

<b>NOS Code</b>	<b>G&amp;J/N4501</b>		
<b>Credits(NVEQF/NVQF/NSQF) [OPTIONAL]</b>	<b>TBD</b>	<b>Version number</b>	<b>1.0</b>
<b>Industry</b>	<b>Gems &amp; Jewellery</b>	<b>Drafted on</b>	<b>31/05/13</b>
<b>Industry Sub-sector</b>	<b>Diamond Processing</b>	<b>Last reviewed on</b>	<b>30/07/13</b>
		<b>Next review date</b>	<b>15/07/15</b>

# National Occupational Standard



## Overview

This unit is about giving the diamond its basic round or conical shape by using the bruting machine in which the doped diamond rubbed against a second spinning wheel of diamond or ceramic. The objective is to ensure: that a perfectly round girdle is formed and the pavilion and crown is coned, while maximizing yield as per planned dimensions.



**G&J/N4504**

**Brut and cone the diamond**

National Occupational Standard

<b>Unit Code</b>	<b>G&amp;J/N4504</b>
<b>Unit Title (Task)</b>	<b>Brut and cone the diamond</b>
<b>Description</b>	This OS unit is about giving the basic round and conical shape to the rough diamond in the proportion and symmetry as per the planning or the objective fixed by the company
<b>Scope</b>	<p>This unit/task covers the following:</p> <p>Collect the rough diamond dops from the supervisor</p> <ul style="list-style-type: none"> <li>match specifications such as shape, size, dimensions, etc., and marking of the fixed rough received with those mentioned on the packet</li> </ul> <p>Mark the girdle on the rough diamond</p> <ul style="list-style-type: none"> <li>mark the girdle to be bruted using the marker machine (e.g., Magnus marker)</li> <li>apply whitener and observe other precautions while marking the girdle as instructed</li> </ul> <p>Set the doped rough diamond in the bruting machine</p> <ul style="list-style-type: none"> <li>follow the marking and design specifications in terms of the size of the girdle, angle of pavillion, etc.</li> <li>check alignment of the dopped rough with marking of the planned cut</li> <li>place the dopped rough on the holder of the bruting machine and tighten it with the help of a spanner</li> <li>enter the required dimensions of the rough in the computer program</li> <li>align the girdle marking on the diamond with the bruting diameter with the help of computer screen</li> <li>start the spinning, once the dimensions have been entered and the alignment accurate</li> <li>bring the spinning wheel or second diamond close to the surface of the diamond to be bruted, using the lever provided in the machine.</li> <li>continuously monitor the bruting process on the screen and adjust the stone position as required</li> <li>use water jet on the wheel or the diamond to avoid heating</li> <li>stop the bruting machine immediately in case any problem such as faulty cut or damage to the stone is observed</li> <li>stop the bruting machine once the rough has been girdled as per the marked line</li> <li>change the alignment of the diamond and the wheel as per the coning requirement repeat the process for coning</li> <li>maintain the required dimensions set by the company such as +20 points from the diameter given in case of rough bruting or +5 points from the diameter given in case of final bruting</li> <li>remove the bruted diamond from the dop and clean the platform</li> <li>bag the bruted pieces and label as per the company's procedure</li> <li>return to the supervisor for further processing</li> </ul>

**G&J/N4504**

**Brut and cone the diamond**

	<p>Return the uncut roughs if:</p> <ul style="list-style-type: none"> <li>the alignment on the holder is not proper</li> <li>there is anticipated problem with the planned brut such that bruting can lead to breakage</li> </ul> <p>Follow safety procedures at work</p> <ul style="list-style-type: none"> <li>to ensure that the door of the bruting machine is closed after placing the fixed rough and before starting the machine</li> <li>not to operate the machine while touching rough</li> <li>to wear proper safety equipment such as gloves and eye glasses while working</li> </ul> <p>Report problems to Supervisor/reporting authority about</p> <ul style="list-style-type: none"> <li>impractical markings</li> <li>machine failures</li> <li>reasons for anticipated delays that may adversely affect delivery</li> </ul>
<b>Performance Criteria(PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Quality of Bruting</b>	To be competent, the user/individual on the job must be able to: PC1. create a perfectly round girdle PC2. accurately bruting and coning of the roughs as per requirement PC3. accurately bag and label the bruted diamonds before returning
<b>Operating the Bruting/Coning Machine</b>	To be competent, the user/individual on the job must be able to: PC4. accurately and securely place the dop in the machine's holder PC5. accurately align the bruting line with the marking for proper cut PC6. accurately enter the parameters such as dimensions in the computer PC7. accurately set the angle of the diamond or the wheel for coning process PC8. steady control of the lever for the to- and-fro bruting and coning process
<b>Productivity</b>	To be competent, the user/individual on the job must be able to: PC9. achieve the productivity in terms of carats or number of pieces as set by the company PC10. achieve timely delivery for further processing PC11. maintain cycle time
<b>Controlling Defects</b>	To be competent, the user/individual on the job must be able to: PC12. accurately assess that marking for the girdle wont damage the diamond PC13. minimize damage, weight loss and breakage PC14. repair a damaged stone
<b>Multitasking</b>	To be competent, the user/individual on the job must be able to: PC15. work on variety of bruting and coning machines using a different technology

**G&J/N4504**

**Brut and cone the diamond**

Knowledge and Understanding (K)	
<b>B. Organizational Context</b> (Knowledge of the company / organization and its processes)	The individual on the job needs to know and understand: <ul style="list-style-type: none"> <li>KA1. company's policies on: acceptable limits of weight loss; incentives; delivery standards; safety practices and hazards; security and performance</li> <li>KA2. work flow involved in company's diamond processing process</li> <li>KA3. importance of the individual's role in the workflow</li> <li>KA4. reporting structure</li> <li>KA5. issue return procedures followed by the company</li> <li>KA6. typical customer profile and market trends</li> <li>KA7. specialization area of the company (size, clarity, shape, quality, etc. of diamonds)</li> <li>KA8. diamond processing objective of the company, e.g. maximizing yield, maximizing clarity, etc.</li> </ul>
<b>B. Technical Knowledge</b>	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> <li>KB1. brutting and coning methods</li> <li>KB2. shape, cut, clarity, carat, and physical characteristics of the diamond</li> <li>KB3. alignments for different brutting and coning of a diamond</li> <li>KB4. potential steps which may cause damage to a diamond</li> <li>KB5. potential work hazards, particularly, when using brutting machine</li> <li>KB6. operating computer and brutting and coning machine</li> <li>KB7. using the marking machine</li> <li>KB8. polishing process</li> <li>KB9. use of various scopes in diamond processing</li> <li>KB10. geometry to understand the angles and symmetry</li> <li>KB11. repair work</li> <li>KB12. uses of different types of tools and materials for different purposes</li> <li>KB13. maintenance and preparation of tools as per job requirement</li> </ul>
Skills (S) [Optional]	
<b>A. Core Skills/ Generic Skills</b>	<b>Basic reading and writing skills</b>
	The user/individual on the job needs to know and understand how: <ul style="list-style-type: none"> <li>SA1. to read descriptions on the job packets/ bags</li> <li>SA2. to enter data on the computer</li> <li>SA3. to document work done for status and performance appraisal</li> </ul>
	<b>Calculation and geometry skills</b>
	The user/individual on the job needs to know and understand how: <ul style="list-style-type: none"> <li>SA4. to judge the extent of rotation, zoom and angling required for perfect brutting</li> </ul>
	<b>Communication skills</b>
	The user/individual on the job needs to know and understand how: <ul style="list-style-type: none"> <li>SA5. to discuss task, schedules, and work-loads with co-workers and supervisors</li> <li>SA6. to understand instructions and report problems</li> </ul>

**G&J/N4504**

**Brut and cone the diamond**

	<b>Teamwork and multitasking</b>
	The user/individual on the job needs to know and understand how: SA7. to share work load as required SA8. to assist others who require help SA9. to share knowledge with co-workers
<b>B. Professional Skills</b>	<b>Reading design dimensions</b>
	The user/individual on the job needs to know and understand how: SB1. to work on dimensions mentioned on the job packet, in order to achieve perfect proportion and symmetry as required by design
	<b>Using tools and machines</b>
	The user/individual on the job needs to know and understand how: SB2. to work with computer, marking machine and the bruting and coning machine SB3. to maintain tools and machines used SB4. to work in a safe environment, i.e., without injuries
	<b>Diamond valuation</b>
	The user/individual on the job needs to know and understand how: SB5. to brut in order to yield maximum value for the finished diamond, where no design is provided
	<b>Reducing loss</b>
	The user/individual on the job needs to know and understand how: SB6. to handle diamonds with care SB7. to minimize damage or loss of any diamond during the bruting process SB8. to report diamond losses via documentation as per company policy SB9. to suggest improvements in order to reduce loss
	<b>Decision making</b>
	The user/individual on the job needs to know and understand how: SB10. to decide for a particular rough, if girdling is possible on the marking provided SB11. to determine from where to begin bruting in order to minimize weight loss
	<b>Reflective thinking</b>
	The user/individual on the job needs to know and understand how: SB12. to work for long hours in front of bruting machine and computer without health problems SB13. to minimise weight loss
	<b>Problem solving</b>
	The user/individual on the job needs to know and understand how: SB14. to rectify defects occurred
	<b>Planning skills</b>
The user/individual on the job needs to know and understand how: SB15. to plan work for maximum productivity	

**G&J/N4504**

**Brut and cone the diamond**

	<b>Critical thinking</b>
	The user/individual on the job needs to know and understand how: SB16. to spot process disruptions and delays

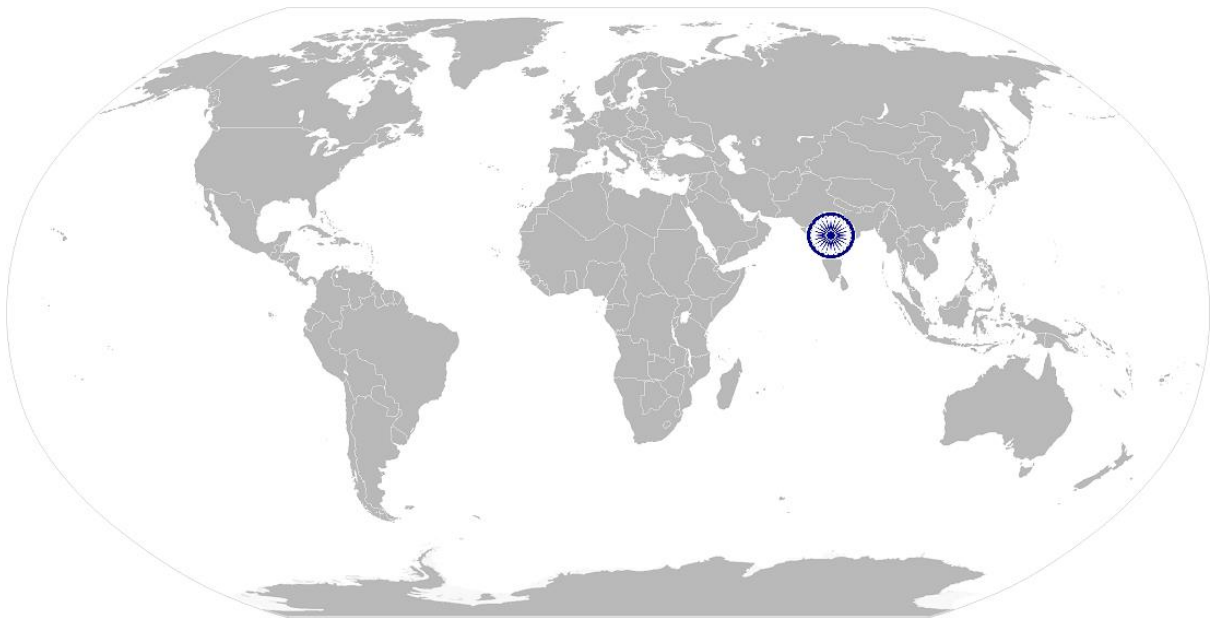
**G&J/N4504**

**Brut and cone the diamond**

## **NOS Version Control**

<b>NOS Code</b>	<b>G&amp;J/N4504</b>		
<b>Credits(NVEQF/NVQF/NSQF) [OPTIONAL]</b>	<b>TBD</b>	<b>Version number</b>	<b>1.0</b>
<b>Industry</b>	<b>Gems &amp; Jewellery</b>	<b>Drafted on</b>	<b>31/05/13</b>
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		<b>Next review date</b>	<b>15/07/15</b>

# National Occupational Standard



## Overview

This unit is about and respecting intellectual property rights (IPR) of the company's products, policies, procedures and orders.

**G&J/N9930**

**Maintain IPR**

National Occupational Standard

<b>Unit Code</b>	<b>G&amp;J/N9930</b>
<b>Unit Title (Task)</b>	<b>Respect IPR of company</b>
<b>Description</b>	This OS unit is about maintaining company's intellectual property
<b>Scope</b>	<p>This unit/task covers the following:</p> <p>Protect company's Intellectual Property Rights (IPR)</p> <ul style="list-style-type: none"> <li>• prevent leak of new orders to competitors by reporting on time</li> <li>• prevent leak of the manufacturing processes or the policies followed by the company</li> <li>• be aware of any of company's product patents</li> <li>• report IPR violations observed in the market, to supervisor or company heads</li> </ul>
<b>Performance Criteria(PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Respecting IPR</b>	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. spot plagiarism and report</p> <p>PC2. understand rationale of patents and IPR</p> <p>PC3. avoid being involved in IPR violations</p>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b>	<p>The individual on the job needs to know and understand:</p> <p>KA1. company's policies on IPR, plagiarism and order leaks</p> <p>KA2. company's patented products</p> <p>KA3. market trends and company's unique product range</p> <p>KA4. reporting structure</p>
<b>B. Technical Knowledge</b>	<p>The individual on the job needs to know and understand:</p> <p>KB1. basics of patents and IPR laws</p> <p>KB2. how IPR protection is important for competitiveness of a company</p>
<b>Skills (S) [Optional]</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Communication skills</b>
	<p>The user/individual on the job needs to know and understand how:</p> <p>SA1. to effectively communicate any observed IPR violations or leaks</p>
<b>B. Professional Skills</b>	<b>Decision making</b>
	<p>The user/individual on the job needs to know and understand when and how:</p> <p>SB2. to report sources of IPR violations</p>
	<b>Reflective thinking</b>
	<p>The user/individual on the job needs to know and understand how:</p> <p>SB3. to learn from past mistakes and report IPR violations on time</p>
	<b>Critical thinking</b>
<p>The user/individual on the job needs to know and understand how:</p> <p>SB4. to spot signs of violations and alert authorities in time</p>	



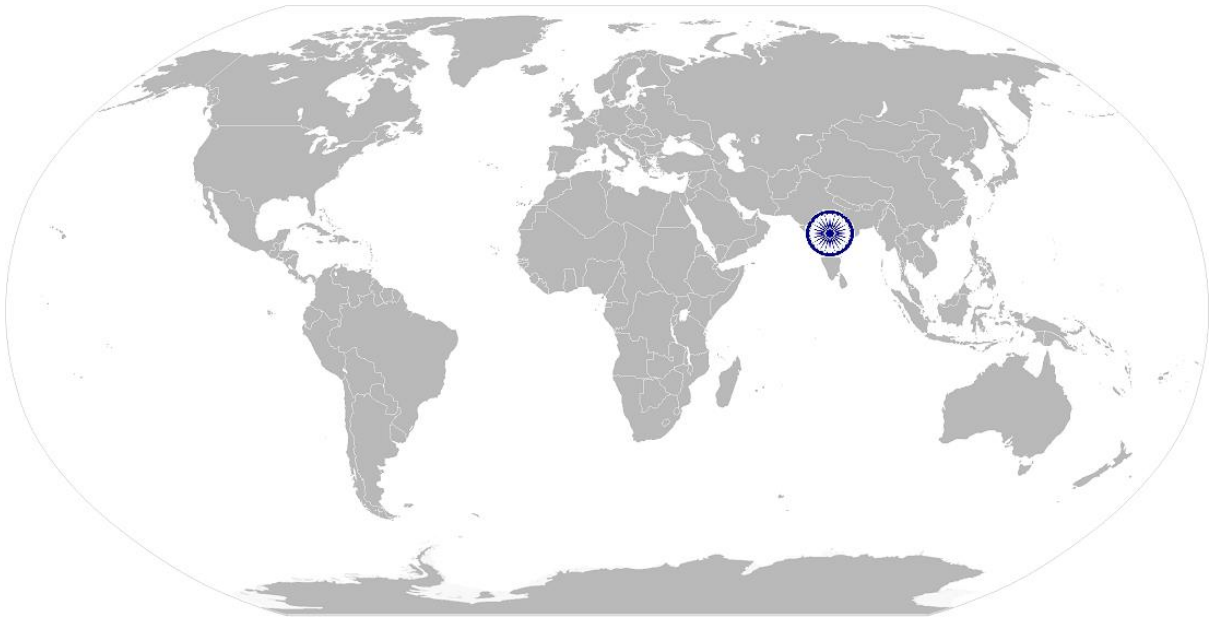
**G&J/N9930**

**Maintain IPR**

## **NOS Version Control**

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		<b>Next review date</b>	<b>15/07/15</b>

# National Occupational Standard



## Overview

This unit is about the work ethics, team work, and level of communication with colleagues or clients in the diamond processing industry. It determines the ability to work as a team member, share work and multi-task in order to achieve the required deliverables on schedule.

**G&J/N9931**

**Coordinate with team and superiors**

National Occupational Standard

<b>Unit Code</b>	<b>G&amp;J/N9931</b>
<b>Unit Title (Task)</b>	<b>Interact with colleagues and seniors</b>
<b>Description</b>	This OS unit is about communicating with colleagues and seniors in order to maintain smooth and hazards free work flow
<b>Scope</b>	<p>This unit/task covers the following:</p> <p>Interact with supervisor to:</p> <ul style="list-style-type: none"> <li>• receive work instructions and raw materials from reporting supervisor</li> <li>• communicate to reporting supervisor about process flow improvements, product defects received from previous process, repairs and maintenance of tools and machinery as required</li> <li>• communicate any potential hazards or expected process disruptions</li> <li>• handover completed work to supervisor</li> </ul> <p>Interact with colleagues within and outside the department to:</p> <ul style="list-style-type: none"> <li>• work as a team with colleagues and share work as per their or own work load and skills</li> <li>• work with colleagues of other departments</li> <li>• communicate and discuss work flow related difficulties in order to find solutions with mutual agreement</li> <li>• receive feedback from QC and rework in order to complete work on time</li> </ul>
<b>Performance Criteria(PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Interaction with supervisor</b>	To be competent, the user/individual on the job must be able to: PC1. understand the work output requirements PC2. comply with company policy and rule PC3. deliver quality work on time as required by reporting any anticipated reasons for delays
<b>Interactions with colleagues and other departments</b>	To be competent, the user/individual on the job must be able to: PC4. put team over individual goals PC5. conflicts resolution and multi-tasking
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)	The individual on the job needs to know and understand: KA1. company's policies on personnel management KA2. work flow involved in company's diamond processing KA3. importance of the individual's role in the workflow KA4. reporting structure
<b>B. Technical Knowledge</b>	The individual on the job needs to know and understand: KB1. how to communicate effectively KB2. how to build team coordination

**G&J/N9931**

**Coordinate with team and superiors**

<b>Skills (S) [Optional]</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Teamwork and some multitasking</b>
	The individual on the job needs to know and understand how: SA1. to share work load as required SA2. to deliver product to next work process on time
<b>B. Professional Skills</b>	<b>Decision making</b>
	The individual on the job needs to know and understand: SB1. how to report potential areas of disruptions to work process SB2. when to report to supervisor and when to deal with a colleague depending on the type of concern
	<b>Reflective thinking</b>
	The individual on the job needs to know and understand: SB3. how to improve work process
	<b>Critical thinking</b>
The individual on the job needs to know and understand: SB4. how to spot process disruptions and delays	

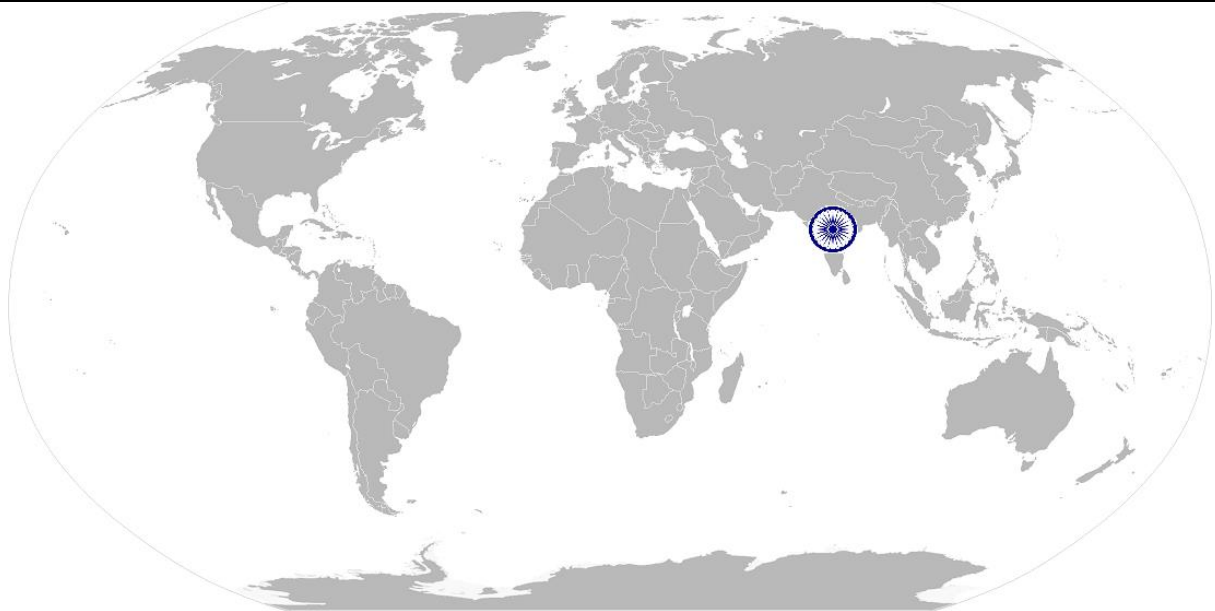


**G&J/N9931**

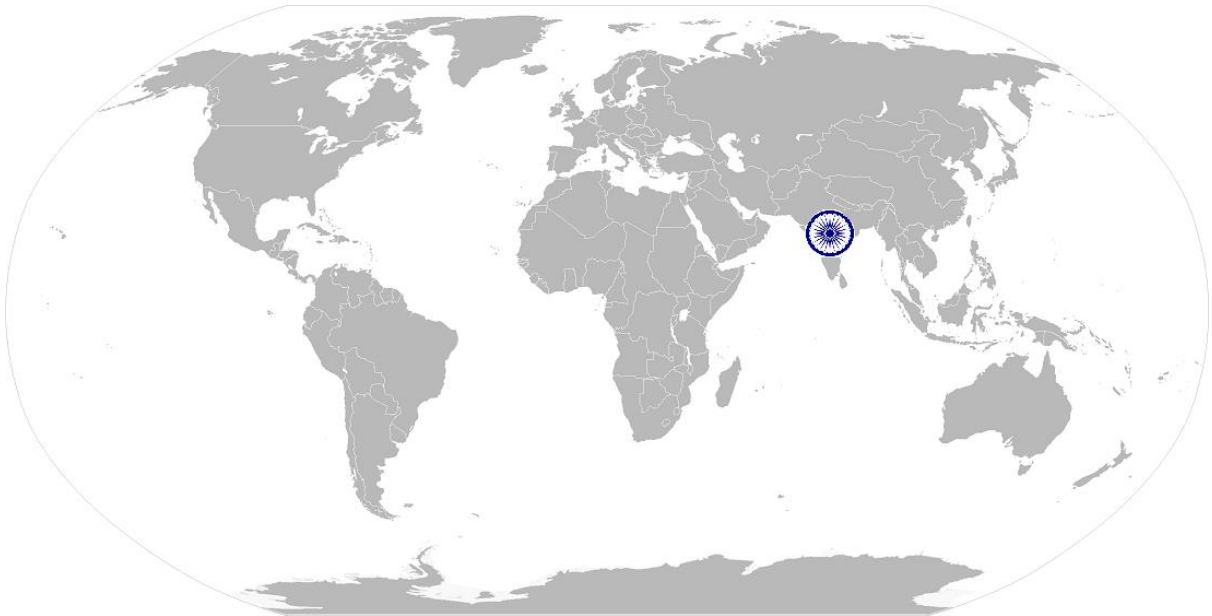
**Coordinate with team and superiors**

**NOS Version Control**

<b>NOS Code</b>	<b>G&amp;J/N9931</b>		
<b>Credits(NVEQF/NVQF/NSQF) [OPTIONAL]</b>	<b>TBD</b>	<b>Version number</b>	<b>1.0</b>
<b>Industry</b>	<b>Gems &amp; Jewellery</b>	<b>Drafted on</b>	<b>31/05/13</b>
<b>Industry Sub-sector</b>	<b>Diamond Processing</b>	<b>Last reviewed on</b>	<b>30/07/13</b>
		<b>Next review date</b>	<b>15/07/15</b>



# National Occupational Standard



## Overview

This unit is about the worker's commitment towards reporting potential hazards and containing accidents in order to make the work environment safe for self and colleagues.

**G&J/N9933**

**Maintain safety**

National Occupational Standard

<b>Unit Code</b>	<b>G&amp;J/N9933</b>
<b>Unit Title (Task)</b>	<b>Maintain safety at work</b>
<b>Description</b>	This OS unit is about being aware of and communicating potential hazards and dangers of accidents on the job
<b>Scope</b>	<p>This unit/task covers the following:</p> <p>Understand potential sources of accidents</p> <ul style="list-style-type: none"> <li>to avoid accidents related to use of potentially dangerous chemicals, gases, sharp tools and hazards from machines like rotating scaife, lasers, heating ovens, etc.</li> </ul> <p>Use safety gear to avoid accidents</p> <ul style="list-style-type: none"> <li>wear safety gear such as goggles, mask, gloves , jacket , etc. as prescribed for the job</li> </ul> <p>Understand the safety procedures followed by the company</p> <ul style="list-style-type: none"> <li>such as fire drills, emergency/ evacuation procedures, first aid, etc., which will be helpful in case of an emergency</li> </ul> <p>Communicate to reporting supervisor about:</p> <ul style="list-style-type: none"> <li>process flow improvements to reduce anticipated or repetitive hazards</li> <li>mishandling of tools, machines or hazardous materials</li> <li>electrical problems that could result in accident</li> </ul>
<b>Performance Criteria(PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Understanding of potential sources of accidents and communicating</b>	To be competent, the user/individual on the job must be able to: PC1. spot and report potential hazards on time PC2. follow company policy and rules regarding hazardous materials PC3. deliver quality work on time as required by reporting any anticipated reasons for delays
<b>Using safety gear</b>	To be competent, the user/individual on the job must be able to: PC4. understand which safety gear must we used for a particular task
<b>Understanding of safety procedures</b>	To be competent, the user/individual on the job must be able to: PC5. understand and follow the evacuation procedure properly during a fire drill PC6. provide first aid to self or others in case of emergency
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b> (Knowledge of the company / organization and its processes)	The individual on the job needs to know and understand: KA1. company's policies on handling: harmful chemicals and sharp tools, safety and hazards of machines, fire safety/drill, first aid and, disposal of harmful chemicals and materials KA2. work flow involved in company's diamond processing process KA3. importance of the individual's role in the workflow KA4. reporting structure



**G&J/N9933**

**Maintain safety**

<b>B. Technical Knowledge</b>	<p>The individual on the job needs to know and understand:</p> <p>KB1. how different chemicals react and what could be the danger from them</p> <p>KB2. how to use machines and tools without causing bodily harm</p> <p>KB3. fire safety education</p> <p>KB4. first aid execution</p> <p>KB5. disposal of hazardous chemicals, tools and materials by following prescribed environmental norms or as per company policy</p>
<b>Skills (S) [Optional]</b>	
<b>A. Core Skills/ Generic Skills</b>	<p><b>Communication skills</b></p> <p>The individual on the job needs to know and understand how:</p> <p>SA1. to effectively communicate the danger</p>
<b>B. Professional Skills</b>	<p><b>Decision making</b></p> <p>The individual on the job needs to know and understand:</p> <p>SB1. importance of reporting potential sources of danger</p> <p>SB2. appropriate actions to be taken in the event of an accident</p> <p>SB3. procedure for disposing of hazardous materials, safely and following environmental guidelines</p> <p><b>Reflective thinking</b></p> <p>The individual on the job needs to know and understand how:</p> <p>SB4. to learn from past mistakes regarding use of hazardous machines, tools or chemicals</p> <p><b>Critical thinking</b></p> <p>The individual on the job needs to know and understand:</p> <p>SB5. how to spot danger</p> <p>SB6. procedure to follow in the event of a fire or other hazard</p>

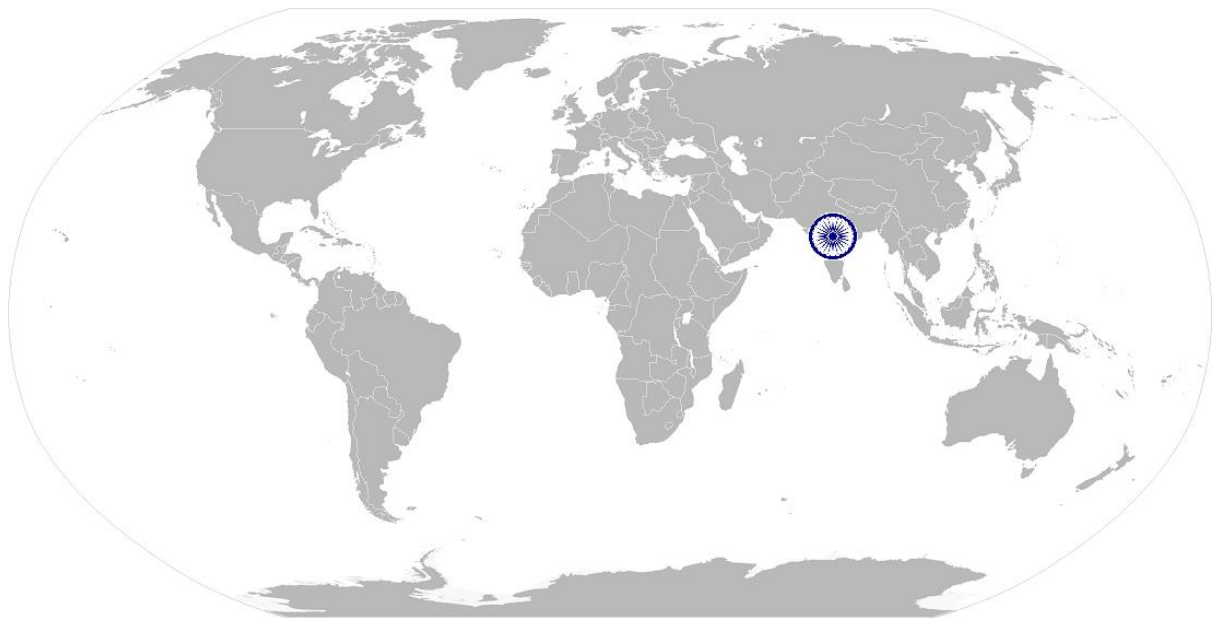


**G&J/N9933**

**Maintain safety**

**NOS Version Control**

<b>NOS Code</b>	<b>G&amp;J/N9933</b>		
<b>Credits(NVEQF/NVQF/NSQF) [OPTIONAL]</b>	<b>TBD</b>	<b>Version number</b>	<b>1.0</b>
<b>Industry</b>	<b>Gems &amp; Jewellery</b>	<b>Drafted on</b>	<b>31/05/13</b>
<b>Industry Sub-sector</b>	<b>Diamond Processing</b>	<b>Last reviewed on</b>	<b>30/07/13</b>
		<b>Next review date</b>	<b>15/07/15</b>



Definitions

Keywords /Terms	Description
Sector	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	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or an area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of OS.
Sub-function	Sub-functions are sub-activities essential to fulfil the achieving the objectives of the function.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria	Performance criteria are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (OS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	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	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	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	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	Knowledge and understanding 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

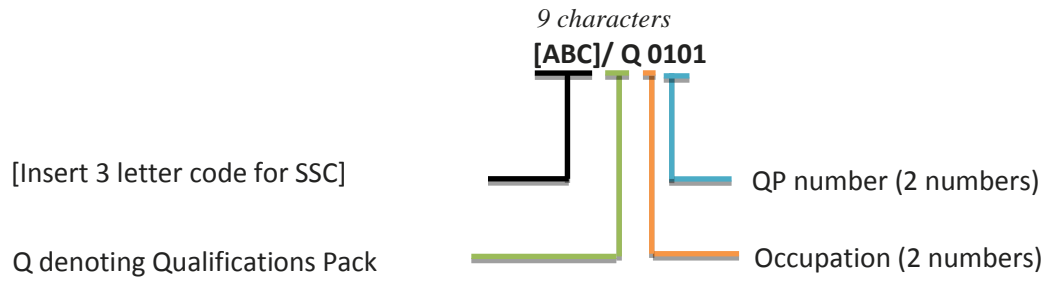
Acronyms

	specific designated responsibilities.
Core Skills/ Generic Skills	Core skills or generic skills 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.
Keywords /Terms	Description
IPR	Intellectual Property Rights
NOS	National Occupational Standard(s)
NVQF	National Vocational Qualifications Framework
NSQF	National Qualifications Framework
NVEQF	National Vocational Education Qualifications Framework
QP	Qualifications Pack

## Annexure

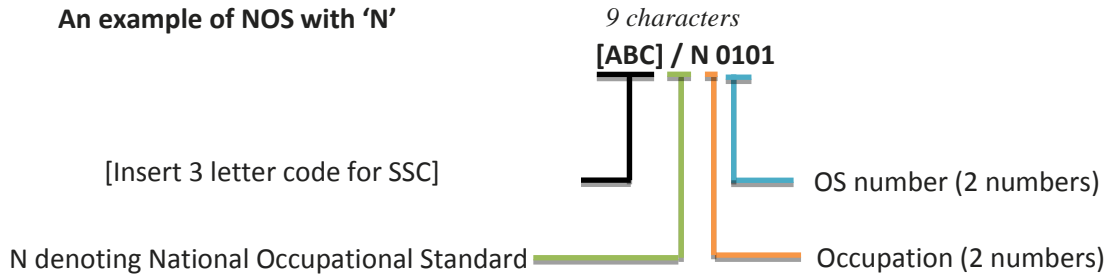
### Nomenclature for QP and NOS

#### Qualifications Pack



#### Occupational Standard

##### An example of NOS with 'N'



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The following acronyms/codes have been used in the nomenclature above:

Sub-sector	Range of Occupation numbers
Handmade gold and gems-set jewellery	01-20
Cast and diamond-set jewellery	21-40
Diamond processing	41-60
Gemstone processing	61-80
Jewellery retailing	81-98

Sequence	Description	Example
Three letters	Industry name	G&J
Slash	/	/
Next letter	Whether <b>QP</b> or <b>NOS</b>	Q
Next two numbers	Occupation code	45
Next two numbers	OS number	05

## CRITERIA FOR ASSESSMENT OF TRAINEES

**Job Role** Auto Bruter

**Qualification Pack** G&J/Q4502

**Sector Skill Council** Gem & Jewellery

### **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 theory question papers for candidates at every examination/training centre. (as per assessment criteria below)
4. Individual assessment agencies will create practical tests for skill evaluation for candidates at every examination/training centre. (as per assessment criteria below)
5. To pass the Qualification Pack, every candidate should score a minimum of 50% in theory and 70% in practical to successfully clear the assessment.
6. In case of successfully passing only certain number of NOS's, the candidate is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.

		<b>Marks Allocation</b>			
		<b>Total Marks (80+20)</b>	<b>Out Of</b>	<b>Theory</b>	<b>Skills Practical</b>
1.G&J/ N 4501 Dop the diamond for Bruting	PC1.Appropriate setting as per size, shape, and Bruting requirement	<b>27</b>	4	0	4
	PC2. Secure setting		6	1	5
	PC3. Accurate levelling and alignment of the rough in the dop		7	1	6
	PC4. No damage to the stone in the fixing process		6	0	6
	PC5. Timely delivery to further processing		2	0	2
	PC6. Number of diamonds fixed as per target assigned		2	0	2
		<b>Total</b>	<b>27</b>	<b>2</b>	<b>25</b>
2.G&J/ N 4504 Brut and Cone the diamond	PC1. Accurate ad secure fixing of the dop in the machine's holder	<b>48</b>	2	0	2
	PC2. Accurate alignment of the marking line for proper cut		2	0	2

	PC3. Data entry of the parameters such as dimensions in the computer accurately		3	1	2
	PC4. Accurate setting of angle of the diamond or the wheel for coning process		6	1	5
	PC5. Steady control of the lever for the to-and-fro Bruting and coning process		6	1	5
	PC6. Exact girdle created as per the marking made		6	1	5
	PC7. Accurate assessment of the marking for the girdle without damage to the diamond		5	1	4
	PC8. Minimal damage, weight loss and breakage		3	0	3
	PC9. Timely delivery to further processing		1	0	1
	PC10. Number of roughs cut against the target assigned		1	0	1
	PC11. Maintained cycle time		2	0	2
	PC12. Accurate Bruting and coning of the roughs as per requirement		4	2	2
	PC13. Accurate bagging and labelling of the bruted diamonds before returning		2		1
	PC14. Delivered on time by reporting problems faced or anticipated		1	1	1
	PC15. Repair damaged stone		1		1
	PC16. Work on variety of Bruting and coning machines using a different technology		3		3
		<b>Total</b>	<b>48</b>	<b>8</b>	<b>40</b>
3.G&J/ N 9930 Reduce diamond loss and maintain IPR	PC1. Spot plagiarism and report	<b>7</b>	2	1	1

	PC2. Aware of patents and IPR		3	2	1
	PC3. Not be involved in IPR violations		2	1	1
		<b>Total</b>	<b>7</b>	<b>4</b>	<b>3</b>
4. G&J/ N 9931 Coordinate with others	PC1. Understand the work output requirements	<b>9</b>	2	1	1
	PC2. Understand company policy and rule		1	0	1
	PC3. Deliver quality work on time as required by reporting any anticipated reasons for delays		1	0	1
	PC4. Put team over individual goals		2	1	1
	PC5. Conflicts resolution and multi-tasking		3	1	2
			<b>Total</b>	<b>9</b>	<b>3</b>
5. G&J/ N 9933 Maintain safe and clean work environment	PC1. Spot and report potential hazards on time	<b>9</b>	2	1	1
	PC2. Follow company policy and rules regarding use of hazardous materials		1	0	1
	PC3. Deliver quality work on time as required by reporting any anticipated reasons for delays		1	0	1
	PC4. Use or wear safety gear as per the rules of the company		2	1	1
	PC5. Clean the work station		1	0	1
	PC6. Organise tools and equipment in use		2	1	1
		<b>Total</b>	<b>9</b>	<b>3</b>	<b>6</b>