



QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR GEMS & JEWELLERY INDUSTRY



Contents

1.	Introduction and Contact	. P1
2.	Qualifications Pack	P2
3.	OS Units	. P3
4.	Glossary of Key Terms	.P20
5	Namonalature of OP & NOS	פס

Occupational Standards(OS)?

What are

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- 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: dharmesh@gjsci.org



Introduction

Qualifications Pack- Manual Bruter

SECTOR: GEMS & JEWELLERY

SUB-SECTOR: Diamond processing

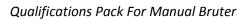
OCCUPATION: Bruting and coning

REFERENCE ID: G&J/Q4505

Manual Bruter: Also known as Bruter or Coner, the manual bruter provides round girdle and cone shape to the sawed rough diamond. It is a traditional way of bruting.

Brief Job Description: Individuals work on the doped diamond to be girdled and hold it against a second diamond spinning in opposite direction to slowly round it into a cone shape. 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 mainly on the floor; high level of concentration; and a lot of patience.







Ioh Details

Qualifications Pack Code	G&J/Q4505		
Job Role	Manual Bruter		
Credits(NVEQF/NVQF/NSQF)	TBD	Version number	1.0
Sector	Gems & Jewellery	Drafted on	31/05/13
Sub-sector	Diamond Processing	Last reviewed on	30/07/13
Occupation	Bruting and Coning	Next review date	15/07/15

Job Role	Manual Bruter Also known as 'Bruter' or 'Coner'
Role Description	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
NVEQF/NVQF level Minimum Educational Qualifications* Maximum Educational Qualifications*	3 Preferably 10 th Standard Passed
Training	Not Applicable
Experience	Not Applicable
Applicable National Occupational Standards (NOS)	1. G&J/N4503 Brut the diamond manually 2. G&J/N6001 Maintain IPR 3. G&J/N6002 Coordinate with others 4. G&J/N6004 Maintain safe work environment Optional: Not applicable
Performance Criteria	As described in the relevant OS units







G&J/N4503 Brut the diamond manually

National Occupational Standard



Overview

This unit is a about giving the diamond its basic round-cum-conical shape by doping the diamond to be girdled and rubbing against a second spinning diamond. The objective is to ensure: that a perfectly round girdle is formed and the pavilion and crown coned, and maximum yield achieved as per planned dimensions.







Brut the diamond manually

Unit Code	G&J/N4503
Unit Title (Task)	Brut the diamond manually
Description	This OS unit is about creating the round girdle and, coned crown and pavilion of diamond in the proportion, symmetry and finish as per the planning or the objective fixed by the company, by manually pressing one diamond against another spinning one
Scope	This unit/task covers the following: Set up the bruting lathe machine check all the parts of the bruting lathe, such as the motor, spinning wheel set the machine so that there is no vibration mount a rough diamond on the dop and fix it on the rotating motor check the rotation of the spinning diamond change the spinning diamond as it wears off Fix the cut rough diamond on a dop and fix the dop on the handle keep the bottom as well as top dops in the heating machine select a hot dop according to the size of the diamond and the side to be bruted use lac to fix the rough diamond on the dop align the diamond as per plan ensure a secure fixing of the diamond on the dop mount the dop on the handle or rod Brut and cone the diamond understand the planning on the job sheet for the final finish of the diamond plan the work start the rotating motor and hold the diamond fixed on the handle against the rotating diamond or wheel turn the handle for rounding remove the inclusions as per planning dip the diamond periodically in water to avoid heating pour water over the spinning diamond while bruting create the round girdle and cone one side then, remove from the dop and repeat the entire process for the other side refix the diamond on a hot dop by turning over to the other side refix the diamond on a hot dop by turning over to the other side ensure that the diamond in not overheated during doping maintain accurate dimensions set by the company such as +20 points from the diameter given in case of final bruting. ensure there are no problems such as nicks, scratches, burn marks, abrasions. remove from the dop, clean the diamond and return to the issue department after labelling the job packet/ bag







Brut the diamond manually

Performance Criteria(P	Follow safety procedures at work • ensure that no accidents take place while working with rotating diamond/wheel • be careful while using heating machine for dops and lac Report problems to Supervisor/reporting authority about: • technical problems with any part of the bruting lathe machine • diamond received with planning defect • higher weight loss than planned • damage while bruting • problems related to the machines and, wear and tear of tools • personal problems and those with other workers		
Element	Performance Criteria		
Quality of bruting	To be competent, the user/individual on the job must be able to: PC1. acheive a perfect round girdle and conical pavilion and crown PC2. accurate proportions as per design requirement PC3. accurately remove inclusions while bruting as per plan PC4. maintain weight loss is as per plan PC5. set up the bruting lathe		
Productivity	To be competent, the user/individual on the job must be able to: PC6. achieve the productivity in terms of carats or number of pieces as set by the company PC7. timely delivery for further processing		
Controlling defects	To be competent, the user/individual on the job must be able to: PC8. minimize damage, weight loss and breakage PC9. ensure no flaws on diamond such as nicks, scratches, burning marks, abrasions PC10. repair a damaged stone		
Knowledge and Unders	standing (K)		
A. Organizational Context (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 KA3. importance of the individual's role in the workflow KA4. reporting structure KA5. issue return procedures followed by the company KA6. typical customer profile and market trends KA7. specialization area of the company (size, clarity, shape, quality, etc. of diamonds) KA8. diamond processing objective of the company, e.g. maximizing yield, maximizing clarity, etc. 		







Brut the diamond manually

B. Technical	The user/individual on the job needs to know and understand:		
Knowledge	KB1. sawing and cutting procedure of roughs		
Miowicage	KB2. blocking procedure of diamonds		
	KB3. bruting and coning		
	KB4. polishing process		
	KB5. 4Cs of diamond (Colour, Cut, Clarity and Carat)		
	KB6. use of various scopes in diamond processing		
	KB7. stress (tension) of the diamond		
	KB8. geometry to understand the angles and symmetry		
	, , ,		
	KB9. process of preparation of bruting lathe machine		
	KB10. types of diamond inclusions		
	KB11. repair work		
	KB12. valuation of diamonds depending on different dimensions		
	KB13. fixing diamond on the dop and fixing the dop on the handle		
	KB14. uses of different types of tools and materials for different purposes		
	KB15. maintenance and preparation of tools as per job requirement		
	KB16. potential work hazards, particularly, when using machine tools		
Skills (S) [Optional]			
A. Core Skills/	Basic reading and writing skills		
Generic Skills	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		
	Calculation and geometry skills		
	The user/individual on the job needs to know and understand how:		
	SA3. to calculate the basic value of a diamond		
	SA4. to understand angles, proportions and other dimension requirements		
	Communication skills		
	The user/individual on the job needs to know and understand how:		
	SA5. to discuss task, schedules, and work-loads with co-workers and supervisors		
	SA6. to understand instructions and report problems		
	Teamwork and multitasking		
	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		
	SA10. to work with other people sharing the workspace		
B. Professional Skills	Reading design dimensions		
	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		







Brut the diamond manually

Using	g too	ls and	machines
USILI	g too	ıs anıu	IIIaciiiies

The user/individual on the job needs to know and understand how:

- SB2. to set up and work with the manual bruiting machine with all its parts such as the motor, spinning wheel
- SB3. to use tools like dops, dop heater, handle, eye glass, water bucket, tweezers and the sticking agent like lac
- SB4. to maintain tools and machines used
- SB5. to work in a safe environment, i.e., without injuries

Reducing loss

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

Diamond valuation

The user/individual on the job needs to know and understand how:

SB10. to brut in order to yield maximum value for the finished diamond, where no design is provided

Bruting technique

The user/individual on the job needs to know and understand how:

- SB11. to direct/angle the handle for bruting/coning
- SB12. much of pressure to be applied while bruting/coning

Planning skills

The user/individual on the job needs to know and understand how:

- SB13. to plan work for maximum productivity
- SB14. to plan the best cut to get maximum value from the diamond

Innovative thinking

The user/individual on the job needs to know and understand how:

- SB15. to devise new means of working to improve productivity or reduce efforts
- SB16. to suggest improvements in tools/machines which can lead to improved productivity or quality

Problem solving

The user/individual on the job needs to know and understand how:

SB17. to rectify defects occured

Reflective thinking

The user/individual on the job needs to know and understand how:

SB18. to work for long hours in a sitting position without health problems

Critical thinking

The user/individual on the job needs to know and understand how:

SB19. to spot process disruptions and delays







Brut the diamond manually

NOS Version Control

NOS Code	G&J/N4503		
Credits(NVEQF/NVQF/NSQF) [OPTIONAL]	TBD	Version number	1.0
Industry	Gems & Jewellery	Drafted on	31/05/13
Industry Sub-sector	Diamond Processing	Last reviewed on	30/07/13
		Next review date	15/07/15







Maintain IPR

National Occupational



Overview

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







Maintain IPR

Unit Code	G&J/N6001			
Unit Title				
(Task)	Respect IPR of company			
Description	This OS unit is about maintaining company's intellectual property			
Scope	This unit/task covers the following:			
	Dratast company's Intellectual Dranauty Dights (IDD)			
	 Protect company's Intellectual Property Rights (IPR) prevent leak of new orders to competitors by reporting on time 			
	 prevent leak of flew orders to competitors by reporting on time prevent leak of the manufacturing processes or the policies followed by the 			
	company			
	be aware of any of company's product patents			
	report IPR violations observed in the market, to supervisor or company heads			
Performance Criteria(P	C) w.r.t. the Scope			
Element	Performance Criteria			
Respecting IPR	To be competent, the user/individual on the job must be able to:			
	PC1. spot plagiarism and report			
	PC2. understand rationale of patents and IPR			
	PC3. avoid being involved in IPR violations			
Knowledge and Unders	tanding (K)			
A. Organizational	The individual on the job needs to know and understand:			
Context	KA1. company's policies on IPR, plagiarism and order leaks			
	KA2. company's patented products KA3. market trends and company's unique product range			
	KA4. reporting structure			
	Toporting structure			
B. Technical	The individual on the job needs to know and understand:			
Knowledge	KB1. basics of patents and IPR laws			
	KB2. how IPR protection is important for competitiveness of a company			
Skills (S) [Optional]				
A. Core Skills/	Communication skills			
Generic Skills	The user/individual on the job needs to know and understand how:			
	SA1. to effectively communicate any observed IPR violations or leaks			
B. Professional Skills	Decision making			
	The user/individual on the job needs to know and understand when and how:			
	SB2. to report sources of IPR violations			
	Reflective thinking			
	The user/individual on the job needs to know and understand how:			
	SB3. to learn from past mistakes and report IPR violations on time			
	Critical thinking			
	The user/individual on the job needs to know and understand how:			
	SB4. to spot signs of violations and alert authorities in time			







Maintain IPR

NOS Version Control

NOS Code	G&J/N6001		
Credits(NVEQF/NVQF/NSQF) [OPTIONAL]	TBD	Version number	1.0
Industry	Gems & Jewellery	Drafted on	31/05/13
Industry Sub-sector	Diamond Processing	Last reviewed on	30/07/13
		Next review date	15/07/15

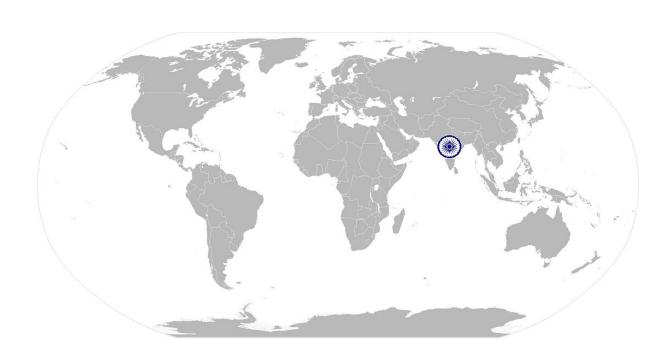






Coordinate with others

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.







Coordinate with others

Unit Code	G&J/N6002		
Unit Title	Interact with colleagues and seniors		
(Task) Description	This OS unit is about communicating with colleagues and seniors in order to maintain		
	smooth ad hazards free work flow		
Scope	This unit/task covers the following:		
	Interact with supervisor to: • receive work instructions and raw materials from reporting supervisor • communicate to reporting supervisor about process flow improvements, product defects received from previous process, repairs and maintenance of tools and machinery as required • communicate any potential hazards or expected process disruptions • handover completed work to supervisor Interact with colleagues within and outside the department to: • work as a team with colleagues and share work as per their or own work load and skills • work with colleagues of other departments • communicate an discuss work flow related difficulties in order to find solutions with mutual agreement • receive feedback from QC and rework in order to complete work on time		
Performance Criteria(F	PC) w.r.t. the Scope		
Element	Performance Criteria		
Interaction with supervisor	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		
Interactions with	To be competent, the user/individual on the job must be able to:		
colleagues and other departments	PC4. put team over individual goals PC5. conflicts resolution and multi-tasking		
Knowledge and Understanding (K)			
A. Organizational	The individual on the job needs to know and understand:		
Context	KA1. company's policies on personnel management		
(Knowledge of the	KA2. work flow involved in company's diamond processing KA3. importance of the individual's role in the workflow		
company / organization and its processes)	KA4. reporting structure		
its processes)			







Coordinate with others

В.	Technical	The individual on the job needs to know and understand:		
Knowledge		KB1. how to communicate effectively		
		KB2. how to build team coordination		
Ski	ills (S) [Optional]			
A.	Core Skills/	Teamwork and some multitasking		
	Generic Skills	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		
В.	Professional Skills	Decision making		
		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		
		Reflective thinking		
		The individual on the job needs to know and understand:		
		SB3. how to improve work process		
		Critical thinking		
		The individual on the job needs to know and understand:		
		SB4. how to spot process disruptions and delays		







Coordinate with others

NOS Version Control

NOS Code	G&J/N6002		
Credits(NVEQF/NVQF/NSQF) [OPTIONAL]	TBD	Version number	1.0
Industry	Gems & Jewellery	Drafted on	31/05/13
Industry Sub-sector	Diamond Processing	Last reviewed on	30/07/13
		Next review date	15/07/15







Maintain safe work environment

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.



(Knowledge of the

organization and

its processes)

KA2.

KA3.

KA4.

company /





G&J/N6004

Maintain safe work environment

Unit Code	G&J/N6004	
Unit Title (Task)	Work towards having a safe work environment	
Description	This OS unit is about being aware of and communicating potential hazards and dangers of accidents on the job	
Scope	 This unit/task covers the following: Understand potential sources of accidents to avoid accidents related to use of potentially dangerous chemicals, gases, sharp tools and hazards from machines like rotating scaife, lasers, heating ovens, etc. Use safety gear to avoid accidents wear safety gear such as goggles, mask, gloves , jacket , etc. as prescribed for the job 	
	 Understand the safety procedures followed by the company such as fire drills, emergency/ evacuation procedures, first aid, etc., which will be helpful in case of an emergency Communicate to reporting supervisor about: process flow improvements to reduce anticipated or repetitive hazards mishandling of tools, machines or hazardous materials electrical problems that could result in accident 	

Performance Criteria(PC) w.r.t. the Scope		
Element	Performance Criteria	
Understanding of	To be competent, the user/individual on the job must be able to:	
potential sources of	PC1. spot and report potential hazards on time	
accidents and	PC2. follow company policy and rules regarding hazardous materials	
communicating	PC3. deliver quality work on time as required by reporting any anticipated reasons	
	for delays	
Using safety gear	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	
Understanding of	To be competent, the user/individual on the job must be able to:	
safety procedures	PC5. understand and follow the evacuation procedure properly during a fire drill	
	PC6. provide first aid to self or others in case of emergency	
Knowledge and Understanding (K)		
A. Organizational	The individual on the job needs to know and understand:	
Context	KA1. company's policies on handling: harmful chemicals and sharp tools, safety and	

chemicals and materials

reporting structure

hazards of machines, fire safety/drill, first aid and, disposal of harmful

work flow involved in company's diamond processing process

importance of the individual's role in the workflow







Maintain safe work environment

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







Maintain safe work environment

NOS Version Control

NOS Code	G&J/N6004		
Credits(NVEQF/NVQF/NSQF) [OPTIONAL]	TBD	Version number	1.0
Industry	Gems & Jewellery	Drafted on	31/05/13
Industry Sub-sector	Diamond Processing	Last reviewed on	30/07/13
		Next review date	15/07/15





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	





	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	

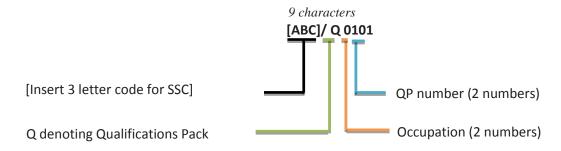




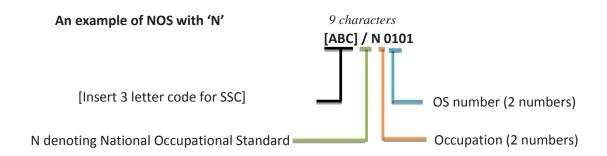
Annexure

Nomenclature for QP and NOS

Qualifications Pack



Occupational Standard



Back to top...







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	81-99	

Sequence	Description	Example
Three letters	Industry name	G&J
Slash	/	/
Next letter	Whether Q P or N OS	Q
Next two numbers	Occupation code	45
Next two numbers	OS number	05