

BRIDGE TRAINING MODEL CURRICULUM

Polisher and Cleaner

SECTOR: GEMS & JEWELLERY
**SUB-SECTOR: HANDMADE GOLD AND GEMS-SET
JEWELLERY, CAST AND DIAMONDS- SET
JEWELLERY, SILVERSMITHING**
OCCUPATION: POLISHING AND CLEANING
REF ID: G&J/Q0701, V2.0
NSQF LEVEL: 4

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Polisher and Cleaner

CURRICULUM / SYLLABUS

This program is aimed at training Bridge course candidates for the job of a “Polisher and Cleaner”, in the “Gems & Jewellery” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Polisher and Cleaner
Qualification Pack Name & Reference ID.	G&J/Q0701, v2.0
Pre-requisites to Training	Basic Literacy Skill
Training Outcomes	<p>After completing this programme, participants will be able to:</p> <ul style="list-style-type: none"> • Understand jewellery market scenario in India. • Understand carrier opportunities in G&J sector for Industry. • How to work in team. • Understand pre-requisites to become an entrepreneur. • Prepare & organize finishing or polishing machines, tools and consumables • Perform Manual polishing of jewellery articles at polishing station with various rotating instruments • Perform different methods of surface finishing • Follow Best bench practices to maintain minimum gold loss or able to maintain predefined metal weight tolerance • Implement 5 S (LEAN methodology) at work place • Perform Cleaning of polished Jewellery • Perform mass finishing of Jewellery for consistent surface quality/ finish & to achieve optimized gold loss. • Perform surface coating processes. • Follow different process quality defects and its repair. • Follow safety practices at the work place (PPE & MSDS)

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<p>Prepare, organize & maintain finishing or polishing machines, tools and consumables</p> <p>Theory Duration (hh:mm) 5:00</p> <p>Practical Duration (hh:mm) 2:00</p> <p>Corresponding NOS Code G&J/No703</p>	<ul style="list-style-type: none"> Understand and demonstrate to plan, prepare and stock the various types of lapping, polishing or buffing wheels, brushes, discs, emery paper sticks, burnishers, hanks of cotton thread etc., before different stages like grinding, pre-polishing and final high shine polishing Understand and demonstrate the use of high-speed rotating polishing motors, freedom hand motors or lapping machine, other tools and equipments etc., Understand and demonstrate the different types of abrasives, compounds, polishing and buffing materials etc, for different precious metal surface Understand and ensure preventive maintenance of the polishing machines or stations, tools and equipments 	<p>Computer or Laptop Attached to LCD Projector for Presentation, different tools, equipments and consumables used in manual polishing</p> <p>White Board/Black Board Marker/ Chalk, Duster, Notepads, Pens, Pencils, Blank Sheets,</p>
2	<p>Manual polishing of jewellery with rotating machines_equipment</p> <p>Theory Duration (hh:mm) 31:00</p> <p>Practical Duration (hh:mm) 12:00</p> <p>Corresponding NOS Code</p>	<ul style="list-style-type: none"> Read and understand the Job sheet or standard operating procedures for the specific finishing or polishing requirement of jewellery Understand and demonstrate the basic steps of manual polishing from grinding to high shine polishing, using rotating equipments Ensure and demonstrate various best bench practices to maintain minimum gold loss or predefined metal weight tolerance 	<p>Polishing Station with Machine, Cotton Gloves, Paint Brush, Metal Brush, Pin Tong, Metal Scissors, Steel Scale, Weighing Scale, Mandrel for Bristle Brush, Wooden Clip, Leather Belt, 2 Line Hair Brush, Rough Rouge (Lustre), Strong Motors, Bristle Brush, Felt Ring Buff,</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	G&J/No704	<ul style="list-style-type: none"> Understand and demonstrate RPMs, pressure and other influencing factors Ensure and demonstrate self-quality checks during various stages of polishing and to re-work or repair various surface defects Understand the benefits and demonstrate the implementation of 5S LEAN Manufacturing practices at work place <ul style="list-style-type: none"> ➤ Sort ➤ Organize ➤ Speak & Span (Cleanliness) ➤ Standardized ➤ Sustain Understand and demonstrate the use of Vacuum dust collector and manual dust collection methods for better gold recovery 	Lapping Wheel, Ring Wooden Stick, Unfinished Brass/ Copper Ornaments, Wooden Polish Sticks, Red Rouge, Tweezers, Table Brush, Buffs - Cloth, Emery Paper/ Sticks, Emery Rubber Wheel, Rubber Bullet, Eye Protective Goggles, Polishing Wax, Thick Cotton Thread, 10x eye loop, Protective Medical Mask, Buffing Machine with All Types of Buff Wheels, Pendant Motor, File Set, Mandrel Set, Cleaning Cloth, Hammer Set, Mixture of sulphuric acid and water Computer or Laptop Attached to LCD Projector for presentation
	<p>Cleaning polished Jewellery Theory Duration (hh:mm) 1:00</p> <p>Practical Duration (hh:mm) 2:00</p> <p>Corresponding NOS Code G&J/No704</p>	<ul style="list-style-type: none"> Understand and demonstrate the use of ultrasonic cleaning machine, steam cleaner Understand & demonstrate setting of influencing parameter like Ultrasonic frequency, temperature, steam pressure etc. Understand and demonstrate common cleaning agents/ chemicals and their application/ dosages 	<p>Ultrasonic Cleaner, Steam Cleaner, Ultrasonic Jig, Tray for Steam Cleaner, cleaning solutions</p> <p>Computer or Laptop Attached to LCD Projector for presentation</p>
	Mass Finishing of jewellery for consistent surface quality and optimized gold loss	<ul style="list-style-type: none"> Understand the use the advantages of modern of mass finishing machines like single-barrel tumblers, hexagonal drums, magnetic polisher, vibrators and disc-finishing etc., 	<p>Computer or Laptop Attached to LCD Projector for presentation</p> <p>Magnetic pin polisher</p>

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<p>Theory Duration (hh:mm) 11:00</p> <p>Practical Duration (hh:mm) 4:00</p> <p>Corresponding NOS Code G&J/No704</p>	<ul style="list-style-type: none"> Understand the physics and influence of different finishing media on the surface in finishing machines Understand different finishing machines for different use Understand the different finishing techniques and parameters that influence the result in mass finishing Understand the suitable jewellery for mass finishing Understand differences of the gold loss in the hand-finishing to the machine-finishing Understand the gold recovery methods for mass finishing waste 	
	<p>Total Duration</p> <p>Theory Duration 48:00 (hh:mm)</p> <p>Practical Duration 20:00 (hh:mm)</p>	<p>Unique Equipment Required: Wooden table of size 1.5 *1.5*1.5 feet ,emery paper Mixture of sulphuric acid and water / three bucket/ clean water, Red stone, rubber hand gloves/cotton hand gloves/ velvet tray, Paint Brush, Metal Brush, Pin Tong, Metal Scissors, Steel Scale, Weighing Scale, Mandrel for Bristle Brush, Wooden Clip, Leather Belt, 2 Line Hair Brush, Rough Rouge (Lustre), Strong Motors, Bristle Brush, Felt Ring Buff, Lapping Wheel, Ultrasonic Jig, Tray for Steam Cleaner, Sand for Sand Blaster, Ring Wooden Stick, Sand Blaster, Ultrasonic Cleaner, Polishing Station with Machine, Steam Cleaner, Magnetic Tumbler, Unfinished Brass/ Copper Ornaments, Wooden Polish Sticks, Red Rouge, Tweezers, Cleaning Solution, Table Brush, Buffs - Cloth, Sticks, Emery Mandrel, Rubber Wheel, Rubber Bullet, Eye Protective Goggles, Polishing Wax, Thick Cotton Thread, 10x eye loop, Protective Medical Mask, Buffing Machine with All Types of Buff Wheels, Pendant Motor, Metal Plating Machine and Components for Plating, File Set, Mandrel Set, Cleaning Cloth, Hammer Set, Jewellery Finishing Tool Kit, Bowls. Safety Hand Gloves, Fire Extinguisher, First Aid Kit Computer or Laptop Attached to LCD Projector</p>	

(This syllabus/ curriculum has been approved by [Gem & Jewellery Skill Council of India](#))

