

List of Tools

~ By Dr. Parag Vyas, Worldskills Expert

Cast & Diamond Set Jewellery Manufacturing

S.NO	Description	Specification
1.	Layout, Measuring & Marking Tools	
	Steel Rule	300 mm/ 12 inch
	Compass/ Divider	100 mm/ 4 inch
	Vernier Calipers	150 mm/ 6 inch
	Permanent Marker / OHP	Red, Blue (Fine Point)
	Pencil	HB, B
	Try Square	50 mm Grade II
	Surface Plate	100 x 150 mm Grade II
	Glue (e.g. Fevi-Stick, Fevi- Quick)	- Commercial Pack
	Waxed Glass Plate	100 x 100 mm (6 mm thick)
	Scriber	150 mm
	Scraper	150 mm
2.	Holding, Gripping & Material Manipulation Tools	
	Tweezers	Number 10
	Pin Vice	4 inch double sided
	Third hand (Double)	- Articulated arm
	Pliers (Flat, Nose, Bent Nose & Round)	- Plastic Grip
	Flush Cutter	- Plastic Grip
3.	Soldering Equipment	
	Soldering Plate/ Block	- Rotating plate
	Soldering Torch	- Propane/ LPG
	Flux (Safe) & Flux Plate	- Ceramic
	Pickle/ Mordent & Bowl	- Ceramic/ Toughened Glass
	Refractory Plate	- Pumice/ Ceramic
4.	Drilling Equipment/ Machine	
	Flex Shaft Motor/ High Speed Spindle	- Fractional HP (1/10 to 1/3)
	Flex shaft Hanger	- Telescopic
	Drill Bits (0.5, 0.6, 0.7, 0.8, 1.0, 1.2 & 1.4 mm ϕ)	- HSS
	Krause End Burrs (0.6,0.8,1.0mm ϕ)	
	Spherical Burrs (0.5 to 2.0 mm stepped/ Preferred)	
	Bud Burrs (Assorted/ Preferred)	
	Cone Burrs (Assorted/ Preferred)	
	Hart Burrs (Assorted/ Preferred)	

5.	Force Concentration Tools	
	Hammer (Riveting, Planishing, Goldsmith's)	- 50 to 150 gms
	Anvil	2-4 kgs
	Chisels	- Tool Steel
6.	Setting, Beading & Engraving Tools	
	Beading Set	#1 to 12
	Engraver Set (Assorted/ Preferred)	Gem Setting
	Prong Pusher	3 inch
	Stone Holder	3-5 prong
	Shellac Block/ Setter's Pitch Block	
	Diamond Mounting Gauge Set	
	Stone Shovel	
	Gemstone Tweezers	Titanium
7.	Abrasive & Cutting Tools	
	Needle Files (Barrette, Crochet, Half round, Equalling, Marking, Round, Three Square, Warding)	150 mm
	Riffler's file Set	100 -150 mm
	Ring File	
	Flat File	
	Piercing Saw	
	Saw Blades (2/0, 3/0, 4,0, 6/0 & 8/0)	
	Buffing Sticks &	
	Emery Paper P 180 to P 800	
8.	Observation & Perception Devices	
	Phase Balanced Table Lamp	
	Jeweller's Loupe	Magnification 10x
	Magnification Glass	Illuminated
	Optivisor	Magnification 2.5- 4 x
	Observation Deck	
	Background Paper/ Graph Paper	
	Sylvet Cloth/ Chamois Leather	
	Acetone/ cleaning Fluid	
9.	Bench Organizers & Receptacles	
	File & Burr Stand	
	Ceramic Bowls	
	Bench Pin & Hardwood Block	
10.	Accessories & Additional Material	
	Blue Tack/ Mastic Compound	
	Plaster of Paris	

	Table Salt	
	Bee's Wax	
	Fabric Glue	
11.	Personal Protection Equipment	
	Lab Coat	
	Side Protection Goggles	
	Ear Plugs	
	Face Mask	



1.File set



2.saw frame



3.saw blades



4.sand paper



5.Buffing sticks



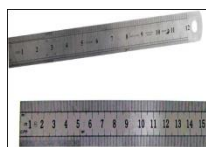
6.tweezers



7.vernier



8. Divider



9. ruler



10.marker



11.fevistick



12.soldering plate



13. soldering torch



14. soldering flux



15. pumice plate



16. surface plate



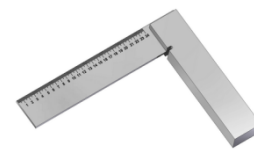
17. Third hand



18. Engraver



19. Hammer



20. Tri square



21. Drill bits



22. Burs



23. Drill machine



24. Draw plate



25. Scraper



26. Chisel



27. Pliers

Jewellery Polishing

S.NO	Description	Specification
1.	Polish Bench & Dust Collector	
	Polish Bench Motor	1/3 to 1/5 HP
	Taper Spindle (LH & RH)	200 mm Approx
	Taper Spindle Friction Grip	wooden
	Arbors	- polish/ lapping
	Arbors with Bur Chuck	- Small brushes
	Outside Ring Holders	Wooden
2.	Polishing/ Buffing Wheels	
	Cotton Stitched	6"
	Felt pressed	6"
	Muslin stitched	6"
	Muslin Non Stitched	6"
3.	Polishing/ Buffing Compound	
	Bobbing	Pumice
	Polishing	Rouge
	Finishing	Finish Green
	Assorted Grits & Medium	- as per specification
4.	Observation & Perception Devices	
	Ambient & Task Specific Light	
	Jeweller's Loupe	Magnification 10x
	Magnification Glass	Illuminated
	Background Paper/ Graph Paper	
	Sylvet Cloth/ Chamois Leather	
	Acetone/ Cleaning Fluid	
5.	Personal Protection Equipment	
	Lab Coat	
	Side Protection Goggles	
	Ear Plugs	
	Face Mask	N 6094 and above